

THE SEAFARERS AND MARITIME ENTREPRENEURS OF MADURA

History, culture, and their role in the
Java Sea timber trade

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I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary educational institution.

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With photographs and line illustrations by the author

Abstract

The seafaring people of Madura, situated off the northeastern coast of Java, are one of the leading maritime groups in the Indonesian archipelago. They have played a major role in indigenous shipping, and since the second half of the nineteenth century their importance in this field has been second only to that of the Bugis and Makassarese. With their strong maritime orientation and outward economy, the coastal Madurese contrast strongly with the agricultural orientation of their near neighbours, the Javanese and the Balinese.

The first part of this thesis presents the Madurese in historical context vis-à-vis the Javanese and the maritime groups of Sulawesi. It then considers the various historical and cultural-ecological factors which predisposed the coastal Madurese toward seafaring as a livelihood, and which enabled them to eclipse their former rivals along the north coast of Java. The main seafaring centres of Madura during the twentieth century are identified, with these being in three distinct locations: the northwest coast, the southwest coast, and the eastern islands of Madura. Special attention is paid to the two major commodities carried by traditional Madurese vessels, salt and cattle, leading up to a more detailed consideration of the major transport commodity from the 1960s until the present, timber.

The second part of thesis focuses on the role of the Madurese in the Java Sea timber trade. A key aspect of this account is the struggle between timber importers and the state. The legal aspects of the movement of timber are explained, along with their economic significance for importers and vessel operators, and the changing degree of compliance with the law from the early 1970s to the much stricter enforcement after the mid-1990s. From the late 1990s until 2003 the focus becomes closer to reveal the inner workings of the timber trade, with special attention paid to the rise of 'wild' ports on the isolated north coast of Madura, as well as the difficulties faced by many Madurese vessel operators after the ethnic conflict in Central Kalimantan in 2001. The profitability and risks of the perahu operators and timber traders are explained, and career profiles of several prominent individuals are presented.

The study ranges widely in its setting, including maritime villages around Madura, perahu ports in Java, and timber ports in Kalimantan. It shows that the qualities which enabled the Madurese to take a commanding role in indigenous shipping a century earlier are no longer relevant, and that diversification and change of approach are now necessary. The maritime entrepreneurs of East Madura have in this respect been more successful than their counterparts in West Madura, and it is suggested that this difference is linked to historical differences between the two areas.



Bound for Jakarta with a cargo of timber.

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Preface

It may seem presumptuous for someone from Australia to attempt a major study of the seafaring people of the Indonesian island of Madura, a highly distinctive group about whom remarkably little has been written. But in this instance the topic is an appropriate one, for this thesis is the culmination of a deep involvement in the maritime world of the Madurese spanning more than two decades.

My interest in Indonesian watercraft and maritime culture was first aroused during a two-month visit to Indonesia in 1974; and on subsequent visits over the next few years I managed to experience more of this apparently anachronistic maritime world, mainly in eastern Indonesia. But notwithstanding this varied experience, on my first visit to Madura in 1983 I was amazed at the vessels I saw. Throughout the rest of the 1980s I returned each year, during my holidays, to Java and Madura, visiting every maritime village I could, and even crossing the Java Sea on some of these traditional vessels.

But as extensive and unusual as my experience was, I was also keenly aware of how little I knew. I had only a vague understanding of Indonesian history; I had no idea as to why the Madurese had become a great maritime people while their near neighbours, the Javanese and Balinese, were evidently not; and nor did I have any idea of why the maritime tradition of the Madurese was so different from that of South Sulawesi and eastern Indonesia.

With my historical interest kindled, I decided to enter university, majoring in Southeast Asian Studies. As part of my undergraduate course, in 1997-98 I spent a year in Indonesia. During the second semester I undertook a three-month field project, staying in a perahu village in Madura. This field study deepened into my Honours year research project, about the *janggolan*, a type of traditional Madurese vessel, and was followed by further visits to Madura in 1999 and 2000.

By this time I was well aware of the paucity of literature about the seafaring Madurese, and I was also well aware that the traditional maritime world, so recently flourishing, was all but gone as a result of the rapid changes which had taken place from the mid-1980s onward. In this situation, I felt uniquely placed to undertake a social historical study of the maritime Madurese. First, I had the great advantage of having observed this group intermittently over a prolonged period of economic change, with much of that observation not from 'outside' ('from the deck of a ship', as van Leur put it), but from 'within', with plenty of personal participation as well as observation. Second, I had a deep interest in the traditional vessels, and had taken much trouble in order to understand the details of their construction, their sailing rigs and operating techniques, and the ornamental

and symbolic elements which were of such importance in this culture. This study is not directly concerned with these matters, but my interest in them led to a deepening of my interest in Madurese maritime society and culture, and its place in the wider maritime culture of Southeast Asia. Third, I had a special interest in the private production of salt, which is a major source of income in parts of coastal Madura, and an industry which has been intimately linked with Madurese perahu shipping.

In addition to this background of experience in Madura and in perahu circles generally, I also had a particular interest in the commodity which has been the economic mainstay of perahu shipping for the past four decades, namely timber. I am an amateur carpenter of fair experience: a few years ago I built a 10.5 metre wooden sailing vessel, and as I write a smaller new wooden vessel sits in my workshop, somewhat neglected because of the exigencies of this thesis. In both cases, with the exception of the Douglas fir for the masts, the wood used came entirely from Borneo. As a result of these and other carpentry projects, most of the timbers which are mentioned in this study are not abstract commodities to me ('timber', like 'sand' or 'coal'). Rather, I am familiar with their appearance, their characteristics when worked, their structural properties, and in some cases their smell when cut. Meranti and kapur, for example, are not my favourite timbers (although good pieces of these are fine), but knowing what they are – what they are like to use – certainly added interest to my research. And as with first-hand knowledge of the traditional vessels of Madura, being able to talk with confidence born of experience about different timbers was often useful in fieldwork.

Although as a study of a maritime people this work necessarily makes frequent reference to particular indigenous vessel types, any reader who lacks background knowledge in this general area will not be disadvantaged. The thesis is written for the general reader, eschewing the nautical jargon which can be fazing for the non-specialist, and with minimal concern for technical or other esoteric matters. This is certainly not because of any lack of interest in these directions on my part, but rather because I realized early on that any attempt to incorporate such detailed description would inevitably unbalance the work as a whole, and detract from its value as a social history. Appendix One discusses the traditional vessels at greater length, but again the approach is non-technical, approaching the subject with broad brush strokes which should allow the reader to engage with the text. The story of the maritime Madurese is a significant part of the maritime and social history of Southeast Asia, and it is important that it be presented in such a way that it can be appreciated by a wide readership.

Of all the many people who have helped me in this study, none deserves my thanks more than my supervisor, Professor Jim Warren. As well as being a mentor of long standing, Jim

has also been an inspiration to me. His unflagging support throughout this long project, and his extraordinary promptness in reading different drafts of my lengthy chapters, with obvious attention to detail regardless of the pressures of his own teaching and writing, go beyond what one has a right to expect. Professor Carol Warren also read the entire thesis, and her incisive criticisms and constructive comments have contributed significantly to the final version.

I am grateful to Murdoch University for the various scholarships which I received, and without which this study would not have been possible; and also for the excellent office accommodation which was made available to me in the university's Asia Research Centre. My 'stablemates' under Jim Warren's supervision, Henry Chen, Line Liss, and the late Tricia Pursell added to the sense of camaraderie at the Centre, and were a much appreciated source of moral, intellectual, and technical support for me throughout my candidature.

My thanks are also due to the Indonesian Academy of Sciences (LIPI) and Universitas Muhammadiyah, Malang, for sponsoring my field study in Indonesia. Professor Achmad Habib, my counterpart for the field study, was a stalwart friend at whose house in Malang I frequently stayed. I must also express my appreciation of my wife, Selva, who has had to tolerate my long absences from home, and who has supported me enthusiastically throughout this project.

Finally, my gratitude is due to my field informants in Madura, Java, and Kalimantan. These people are far too numerous to include here, and even the list of principal informants at the end of the thesis is far short of the real number. Indeed, I would be unable to recall them all, as distinct individuals. Some became close friends, but in a broader sense these informants were part of the social matrix in which I lived and mixed, and learned. This study is a tribute to the seafaring people of Madura, and it is to them I dedicate it.

Conventions used in this thesis

Placenames. Placenames have in most cases been spelt according to contemporary Indonesian practice. However, in writing about the early modern period I have retained the old European spellings of Malacca and the Moluccas, rather than the modern versions of Melaka and Maluku, in keeping with the spelling used in the historical works upon which that part of my research was based.

Names of indigenous vessel types. Names of indigenous vessel types have been italicized throughout. The exception is the word *perahu*, which is sufficiently widely known to be treated as a loan word, and has for example long been used (as ‘*prau*’) without italicization in British Pilot volumes. ‘*Perahu*’ is nevertheless clarified in a footnote in Chapter I. No plural form is used for any of these indigenous vessel names, with plurality being apparent from context.

Common names of timber species. Standard Indonesian names for timber species have not been italicized, for two reasons. First, I have used italics for the botanical names. Second, while many readers may be unfamiliar with some of these common names, many of them are used for trade purposes around the world, and appear in numerous publications without italicization. However, in a few cases in which the name of a timber is a strictly local usage, and thus different from the standard Indonesian word for that species, I have used italics.

Indonesian words. These have been italicized except for abbreviations, or names of organizations; and no plural form is used. (For readers without any knowledge of Indonesian, [c] is always pronounced as [ch].)

Glossary

<i>afdeeling</i>	administrative district under Dutch rule
<i>alisalis (lisalis)</i>	type of small traditional open vessel of Madura
<i>Airud</i>	‘water and air’ (police); ~ police, water police
<i>bangkirai</i>	kind of tree (<i>shorea laevifolia</i> Endert)
<i>banjir kap</i>	‘log flood’; floating large quantities of logs downriver
<i>becak</i>	pedal-driven trishaw
<i>bedouang (paduwang)</i>	traditional double-outrigger vessel of Madura
<i>beluntu</i>	vessel from Bawean with angular profile in European style, but with traditional sailing rig and lateral rudder
<i>benuas</i>	kind of tree (<i>shorea laevis</i> Ridl.)
<i>bifid-ended</i>	~ vessel, one which when viewed in profile has a bifurcated shape at the bow and stern
<i>blater</i>	forceful, tough (of person, esp. a leader) (Java, Madura)
<i>bowsprit</i>	spar extending forward from the bow of a vessel
<i>bulkhead</i>	transverse partition in a vessel
<i>bulwark</i>	a broad rail or similar enclosing structure around the edge of a vessel’s deck
<i>bungur</i>	kind of tree (<i>lagerstroemia</i> sp.)
<i>bupati</i>	the highest-ranking official of a <i>kabupaten</i>
<i>cemplon</i>	type of traditional decked transport vessel of Java
DPP	<i>Daftar Penggantian Pengangkutan</i> , change of mode of transportation (permit)
<i>desa</i>	local administrative unit or ward, lowest tier of formal government
<i>Dinas Kehutanan</i>	Forestry Service
<i>doghouse</i>	short raised shelter cabin on a vessel, usually aft of and higher than the main deckhouse structure
DR	reforestation fund levy (<i>dana reboisasi</i>)
<i>finial</i>	ornamental piece on top or at end of a structure
<i>gaff</i>	spar attached at an angle to the upper part of a mast; standing ~, type of gaff that remains permanently aloft
<i>golekan</i>	traditional type of transport vessel of Madura
HPH	forestry concession permit (<i>hak pengusaha hutan</i>)
<i>jago</i>	a ‘tough’, person prepared to use force for coercion
<i>janggolan</i>	traditional type of transport vessel of Madura
<i>jong</i>	traditional Southeast Asian ship, extant until 17 th century

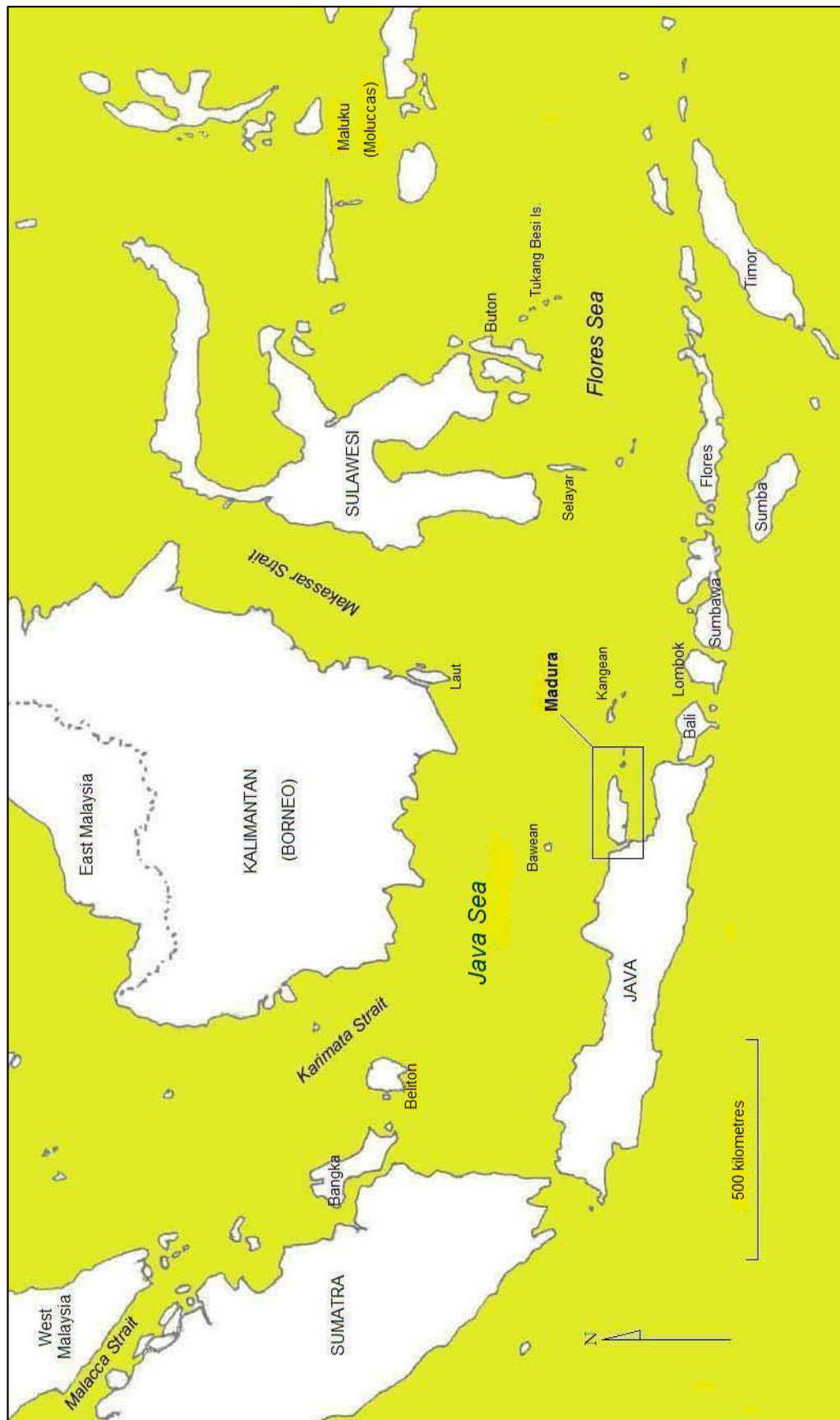
<i>kabupaten</i>	sub-provincial administrative district
<i>kacik</i>	type of traditional transport vessel of Madura, based on the <i>cemplon</i> of Java
<i>kafir</i>	(Isl.) non-believing; profane
<i>kampong</i>	small village; hamlet
<i>kapur</i>	various related kinds of tree (<i>dryobalanops</i> sp.)
<i>kecamatan</i>	administrative sub-district, below level of <i>kabupaten</i>
<i>kelotok</i>	small canoe-like open motor boat, used in Kalimantan
<i>kelurahan</i>	village level administrative unit, similar to a <i>desa</i>
<i>kenek</i>	assistant to driver on small passenger vehicle
<i>kepala desa</i>	elected official in charge of a <i>desa</i>
<i>keruing</i>	various related kinds of tree (<i>dipterocarpus</i> sp.)
<i>ketch</i>	vessel with two masts, the forward one the taller
<i>ketupat</i>	rice cake wrapped in plaited coconut leaves; ~ festival, festival with giving of such cakes.
<i>kiai (kiyayi)</i>	charismatic religious leader (Java, Madura)
<i>klebun</i>	Madurese term for <i>kepala desa</i>
KL	sailing vessel (<i>kapal layar</i>)
KLM	motor sailing vessel (<i>kapal layar motor</i>)
KM	motor vessel (<i>kapal motor</i>)
<i>kolek</i>	open boat (Java); type of large open fishing vessel of Java
<i>kongsi</i>	Chinese syndicate or clan-like organization
<i>konteng</i>	large traditional type of open vessel, similar to <i>kolek</i> (Java)
<i>koyan</i>	28 to 30 <i>pikul</i> , but sometimes more depending on the commodity concerned
KPM	Koninklijke Paketvaart Maatschappij (Royal Packetship Company)
<i>kuala</i>	(in placenames) estuary, river
<i>laban</i>	kind of tree (<i>vitex pubescens</i>)
<i>lambo</i>	non-traditional vessel with counter stern in European style, widely used in eastern Indonesia
<i>last</i>	4000 lb; nominal or ‘manifest’ ton for cargo.
leeboard	a board mounted on the side of a vessel to prevent it from sliding sideways when under sail
<i>letelete</i>	type of traditional transport vessel of East Madura
<i>Lokal</i>	see <i>Pelayaran Lokal</i>
loose-footed mainsail	mainsail which does not have a boom on its lower edge
<i>mayang</i>	traditional large open fishing vessel of Java, similar to but slightly smaller than the <i>konteng</i> .

MC	mixed meranti (<i>meranti campur</i>)
meranti	various related kinds of tree (<i>shorea</i> sp.)
MSM	Madoera Stoomtram Maatschappij (Madura Steamtrain Company)
<i>Nusantara</i>	see <i>Pelayaran Nusantara</i>
nyamplong	kind of tree (<i>calophyllum inophyllum</i>)
<i>padewakang</i>	type of large decked trading vessel of Sulawesi, based on the <i>pajala</i> hull form (19 th century)
<i>pajak laut</i>	‘sea tax’ (unofficial charge)
<i>pajala</i>	basic vessel type of Sulawesi, with no deck
Pak (Bapak)	Mr., term of respect for older man or official; father
<i>palari</i>	type of large trading vessel from Sulawesi, developed from the <i>padewakang</i> (late 19 th to early 20 th centuries)
<i>pasisir</i>	coastal, the coast
<i>Pelayaran Lokal</i>	‘Local shipping’ (official category for small motor ships)
<i>Pelayaran Nusantara</i>	‘Archipelago shipping’ (official category for modern ships)
<i>Pelayaran Rakyat</i>	‘People’s shipping’ (official category for perahu)
Pelra	association of <i>Pelayaran Rakyat</i> entrepreneurs
<i>pencalang</i>	type of traditional trading vessel of Java, of Malay origin (17 th to 19 th centuries)
perahu	wooden vessel, especially one used for transport work
<i>peranakan</i>	of mixed Chinese and indigenous descent; assimilated
<i>percaton</i>	appanage system in Madura, used until late 19 th century
<i>pesantren</i>	residential Islamic learning centre
<i>pikul</i>	about 125 lb (load of two baskets carried on a pole)
<i>pinis (pinisi)</i>	type of large trading vessel used by Bugis and Makassarese, with European sailing rig (20 th century)
PSDH	forest product royalty (<i>provisi sumber daya hutan</i>)
PT	limited liability company (<i>perusahaan terbatas</i>)
<i>rakyat</i>	common people; ~ shipping, perahu shipping; ~ salt producers, private salt producers
<i>rato</i>	ruler, prince
<i>retribusi</i>	levy
SAKO	transport permit for sawn timber (<i>surat angkatan kayu olahan</i>)
<i>sampan</i>	general term for small open vessel on south coast of Madura (with no similarity in form to Chinese sampan)
<i>sawah</i>	wet-field rice farming, plot of land for same
sea tax	unofficial payment demanded by police or Navy

<i>sekoci</i>	non-traditional perahu after European style, with sharp stern and central rudder; very small flat-bottomed craft
<i>sepel</i>	non-traditional type of perahu, with lateral rudder
sheer line	line formed by the upper limit of a vessel's basic hull structure, as seen in profile
SKSHH	certificate of legality of forest produce (<i>surat keterangan sahnya hasil hutan</i>)
sloop	vessel with one mast and two sails (mainsail and jib)
<i>sope (sopek, sopet)</i>	various types of small perahu, usually undecked
staysail	a sail set on a stay (rather than on a mast); jib
strop	a small loop made of rope or cord
<i>suku</i>	ethnic or sub-ethnic group
<i>sungai</i>	(in placenames) river
tack	when sailing into the wind, to change course so that the wind comes on the other side of the vessel
<i>tanjung</i>	(in placenames) point, cape, promontory
<i>tegal</i>	dry-field farming
<i>toop</i>	large 19 th century perahu, similar in form to European vessels
topsides	that part of a vessel's hull which is above the height of the sheer line
<i>totok</i>	pure-blood, unassimilated (esp. of Chinese persons)
ulin	kind of tree (<i>eusideroxylon zwageri</i>)
VOC	<i>Vereenigde Oost-Indische Compagnie</i> (Dutch East India Company)
yard	a spar which is slung from or otherwise attached to a mast, and to which the upper edge of a sail is attached



Traditional vessel construction at Kebun Dadap, Sumenep.



CHAPTER I

Introduction

This study is about the seafarers and vessel operators of Madura, Indonesia. In one sense it is a social history, tracing the threads of the past of these people and connecting them up to the present; but in another sense it is also an ethnographic study, relying heavily as it does upon direct observation and involvement in the field. Apart from an historical opening chapter to set the scene, the temporal frame of the study is roughly the past century, leading up to 2003 when my fieldwork in Madura ended. Within that temporal framework, however, the primary focus is on the years from the mid-1970s onward, during which period the vessels of Madura have been engaged almost entirely in the importation of timber from Sumatra and Kalimantan to Java. As indicated by the title of the thesis, this timber trade and the nature of Madurese involvement in it receive detailed attention. This is appropriate, for the ‘maritime culture’ of the Madurese cannot be adequately presented in abstraction from the economic and material forces which sustain it. In focusing on their role in the timber trade, this study thus presents these seafarers and maritime entrepreneurs, all of whom live in relatively isolated communities, in the context of their engagement with the wider society and economy of modern Indonesia.

There are three interdependent strands to the study. First, it focuses on the emergence of the Madurese as a major force on the indigenous shipping scene, and the maintenance of their economic role through the twentieth century up until the 1970s, by which time the boom in the importing of timber from the Outer Islands to Java was already under way. Second, it presents a comprehensive picture of the Madurese role in the Java Sea timber trade, and reveals the inner workings of that trade. Third, it looks at the nature of the involvement of Madurese in the timber trade from the standpoint of their own ethnicity and culture. By comparison with other ethnic groups of Indonesia, the Madurese stand out for their strong ethnic boundary maintenance, their frugality and thrift, their individualism and self-reliance, and the integral place of Islam in their culture. These ethnic characteristics, acknowledged by both the Madurese themselves and outsiders in dealings with them, have served the maritime entrepreneurs of Madura well and helped them to rise to dominance in indigenous shipping while their former rivals, the seafaring Javanese, slipped into oblivion. But in the wake of the bureaucratic, economic, and ecological changes which have taken place in Indonesia over the past decade, some of the ethnic characteristics which served the Madurese so well in the past are now much less useful to them, and may even become a barrier to their continuing success in the maritime sphere.

The significance of the topic

As a vast archipelagic country, it is natural that Indonesia should have an extensive range of sea transport services. A remarkable feature of this maritime transport scene has been a large fleet of traditional-looking wooden vessels, or *perahu*,¹ operating in the interstices of the maritime trade conducted by modern shipping. Until about 1980 the majority of these *perahu* were engineless, constituting the largest fleet of open-water working sailing vessels in the modern world. Since the 1980s most *perahu* have been motorized and their sailing rigs reduced, but a small number continue to operate under sail alone. Although to the casual observer these vessels may all look ‘traditional’, very few of them now strictly warrant this appellation because of the extensive changes in design which have accompanied the process of motorization.² But regardless of their degree of departure from genuine tradition, none of these vessels are built from plans, and they all contrast markedly with modern ship types, even of small size. For administrative purposes the vessels of this ‘traditional’ fleet are grouped together in a category known as the *Pelayaran Rakyat*, ‘People’s Shipping’; while small motor ships of more modern type, built from either steel or wood, come into the category of *Pelayaran Lokal*, ‘Local Shipping’; and large modern ships come into the category of *Pelayaran Nusantara*, ‘Archipelagic Shipping’, sometimes referred to as Regular Liner Shipping (RLS) (see Hughes, 1984). *Rakyat* shipping is often referred to as *perahu* shipping, and this was indeed the name (*prauwvaart*) used by the Netherlands Indies administration. In this thesis the terms *Pelayaran Rakyat*, *Rakyat* shipping, *perahu* shipping, and indigenous shipping are all used interchangeably.

Even in the first half of the twentieth century *perahu* shipping was anachronistic by world standards, and by the 1970s it was very much more so. Yet despite the uniqueness of this armada of indigenous vessels on the modern world shipping scene, remarkably little has been written about it. The two most important works in the literature on the subject are those of Dick (1974a, 1974b), and Hughes (1984). Both these works are of a general nature, focusing on the *perahu* shipping industry as a whole, with Hughes’ unpublished study

¹ This is a general term in Indonesian meaning ‘boat’, and can thus refer to any sort of small vessel. However, in maritime transport circles it refers in particular to substantial wooden craft of traditional or semi-traditional style, intended for cargo work. In Madura, small open vessels of up to ten metres in length which may be used for either fishing or shorthaul transport are referred to as *sampan*, a word borrowed from Chinese – although the boats bear no resemblance to the various small Chinese vessels known by this name – while the term *perahu* (in Madurese, *parao*) is reserved for larger vessels, usually decked over. This is a convenient distinction which will be used in this thesis. A ship is referred to as *kapal*. Some large ‘*perahu*’ are effectively small ships, and indeed nowadays designated so for official purposes, but they are nevertheless referred to in common parlance among those who use them as ‘*perahu*’. Again, this usage will be adopted for this thesis.

² Lips (1993: 149-151) argues that it is reasonable to describe the substantial wooden motor ships now built at various places in Indonesia as ‘traditional’, on the ground that even though the hull forms of these vessels bear no relation to traditional designs, the method of construction is traditional.

following up Dick's long benchmark article to take into account the motorization of perahu which was proceeding apace after the mid-1970s. Apart from these two primary works, most other studies of perahu focus on the vessels themselves, in most cases with minimal attention to their economic role. Since the 1970s perahu shipping has been declining steadily, losing ground mainly to *Lokal* shipping; and for this reason together with the modernization of the vessels, it might appear that there is now little scope left for a major study in this field. However, while it is true that the heyday of the perahu has passed, the representation in the literature of this unique maritime world amounts to little more than a view from the outside, and the motivations, strategies and experiences of the men who actually operate the vessels remain but dimly perceived.

The dearth of serious studies of this conspicuous maritime institution unique to Indonesia is not by chance. In pre-modern times the Indonesian archipelago was one of the world's great maritime culture areas (see Brissenden, 1976), which should hardly be surprising given the geography of the region. But the last and greatest political powers that emerged in the archipelago, the states of Majapahit and Mataram, were both agrarian-based, with their centres in inland Java; and to the very present the perception of the Javanese, the dominant ethnic group in the region, is overwhelmingly of a land-based, agrarian people. Among the status-conscious Javanese, and indeed most of the major agrarian peoples of the region, agrarian society is moreover associated with 'high' culture, since the principal traditional cultural refinements and institutions sprang from this agrarian base; whereas *pasisir* or strand-dwelling society, with its orientation toward the sea, is regarded as coarse and best avoided.

There has thus been an enduring and pervasive bias toward the land in Java-dominated Indonesia, and a corresponding lack of recognition of the region's indigenous maritime past together with a generally disparaging view of extant maritime communities. This land-bias is reflected in the small number of major studies by Indonesian scholars of their own maritime heritage, a field which by virtue of the rich resources available should have been exceptionally rewarding.³ Foreign scholars, especially anthropologists, have also brought with them their own bias toward land-oriented societies as a consequence of their own cultural and professional backgrounds.⁴ Consequently, although the inappropriateness of this Java-centric view of Indonesia and the need for a greater concentration on Outer Island and maritime-oriented societies has been argued cogently by Emmerson (1980) and

³ Notable exceptions to this pattern include Pelly (1977), Lopian (1979), Sunito (1982), Lopa (1982), Leirissa (1993), and Masyuri (1996). In recent years interest in maritime history and maritime communities has increased among Indonesian scholars, most significantly at Hasanuddin University, Makassar, and the Centre for Southeast Asian Maritime Studies at Diponegoro University, Semarang.

⁴ See Emmerson, 1980: 140. The general land bias which Emmerson wrote of with respect to foreign scholars of Southeast Asia continues until the present.

Dick (1993), within Indonesia maritime communities in general and seafaring peoples in particular remain largely neglected by academic researchers. As will be shown, nowhere is this neglect greater than in the case of Madura.

Despite the great number of strand-dwelling communities scattered around the Indonesian archipelago, with many different ethnicities represented, transport perahu activity has been dominated by just five ethnic groups: the Bugis, the Makassarese, the Mandar, the Butonese, and the Madurese.⁵ Of these five maritime groups, the first three mentioned all come from the southern area of the island Sulawesi.⁶ Most Javanese, or most Indonesians and interested outsiders for that matter, would not regard this dominance of groups from Sulawesi in perahu shipping as remarkable, as the people of Sulawesi have long been renowned for their association with the sea, just as the Javanese are associated with prowess in agriculture. But what is of special interest is the apparent incongruity of the inclusion of the Madurese as one of the major maritime groups, since Madura, situated just off the north coast of the eastern hook of Java, is geographically, culturally and administratively part of the Javanese core.⁷

Of these five maritime groups, by far the dominant in popular perception as well as the best represented in the literature are the Bugis. However, in general reference to maritime matters the term Bugis often implies the Makassarese as well, since both ethnic groups originate from the southwestern peninsula of Sulawesi (the province of South Sulawesi), and share a common maritime culture despite their linguistic differences. Their original homeland areas were separate, with the Bugis on the eastern side of the peninsula and the Makassarese in the southwest part; but from the seventeenth century on Bugis people have been moving to Makassar and its surrounding areas, and there is now considerable overlap of

⁵ Although the use of the suffix ‘-ese’ like this is widespread in the literature of these peoples, I have misgivings about it because of its connotations of orientalist perspective, and I would prefer to follow the example of Pelras (1996) who appropriately refers to the ethnic groups of South Sulawesi as ‘the Bugis’, ‘the Makassar’, and ‘the Mandar’. Unfortunately this approach would be awkward in the case of the people of Buton and Madura, and also Java: to refer to those people as ‘the Buton’, ‘the Madura’ and ‘the Java’ would read oddly, partly because of the departure from common practice in the literature but also because such usage would not sufficiently distinguish each ethnic group from the island bearing the same name. With this in mind, I have followed Pelras only in the case of the Bugis and the Mandar, as there is no clash with placenames, while for the other groups I have added ‘-ese’ to distinguish the ethnic groups from the places with which they are associated.

⁶ The home area of the Butonese, the island of Buton and smaller nearby islands, is separate from the mainland of Sulawesi, but administratively is part of the province of Southeast Sulawesi.

⁷ Not all of the vessels operated by the three South Sulawesi groups are actually based in that province, as the three groups have become widely dispersed (see Lineton, 1975; Andaya, 1995). As well as in Makassar, many Bugis and Makassarese vessel owners are based in Jakarta, Surabaya, Palembang, Banjarmasin, and Bima, among other places; while many Mandar vessel operators reside on the island of Laut, off the coast of South Kalimantan. The Madurese are also a very widely dispersed people; but in contrast to the other groups, Madurese perahu all come from Madura itself, and are operated by crews resident in Madura. (There are some exceptions to this rule, which will be clarified in the thesis. But for purposes of comparison with the maritime groups from South Sulawesi, the statement is valid.)

settlement (Reid, 1983: 120).⁸ Similarly, the Mandar people also come from South Sulawesi, with their homeland in the northwest of the peninsula; and although they are less often associated with the Bugis, their maritime culture has much in common with that of the other two groups.

For these reasons much of what has been written about Bugis maritime culture and history also applies to the other maritime groups of South Sulawesi. An article on perahu shipping of South Sulawesi, by van Vuuren, appeared as early as 1916, and since then numerous other works on this general area have been published. Historical studies include those by Tobing (1961), Cense (1972), Lopa (1982), Macknight (1976), Macknight and Mukhlis (1979), Leirissa (1993); works on shipbuilding practice and traditions, and development of vessel types include Nooteboom (1936), Pelly (1977), Horridge (1979b), and Sularto (1985); social and economic change in the traditional maritime sector have been investigated by Sunito (1982) and Ridder (1988); and piloting and navigation have been well covered by Amarell (1999).⁹ Apart from this academic literature, by no means exhaustive, there exist various accounts of experiences of sailing on Bugis vessels, most notably the two books by Collins (1936, 1937), and documentary films, for example *The Hasans: a Buginese trading family* (1974).

Although the literature pertaining to the maritime world of the Butonese is less extensive, two significant works in this field have been published: the ethnographic study of Southon (1995), which examines symbolic connections between ships and houses as well as providing useful information on the perahu-dependent economy of a remote Butonese village; and Horridge's study of the Butonese vessel of choice, the *lambo* (Horridge, 1979a).

In contrast to the above, no major study has been made of the Madurese as a maritime group. Such interest as has been shown in their maritime tradition has been limited almost entirely to descriptions of Madurese perahu types. Gibson-Hill (1950) and Horridge (1981, 1986) present information on traditional Madurese vessels, but only in general works dealing with perahu types from around the archipelago. Blake (1925) described one Madurese type in a popular magazine, while more detailed studies of other types of Madurese perahu are found in Mellefont (1991) and Burningham and Mellefont (1994). Piollet (1995) provides an excellent pictorial record of different Madurese vessels, but despite a useful historical overview of indigenous seafaring in the archipelago sheds little

⁸ Because of this overlap of settlement and the acknowledgement of common cultural characteristics, the Bugis and Makassar tend to regard themselves as a unified people, the 'Bugis-Makassar' (see Pelras, 1996: 14-15; and on the history of this melding of these two groups who were formerly bitter enemies, Andaya, 1977, 1981). Some sailors on Bugis perahu have in fact identified themselves to me as being of 'Bugis-Makassar' ethnicity. However, because this joint ethnic ascription is not normally applied by those not belonging to this group, I have refrained from using it in this study. Nevertheless, my use of the term 'Bugis' should in general be taken as an abbreviated form of 'Bugis-Makassar'.

⁹ Of this list, the works of Nooteboom and Sunito deal specifically with the Mandar.

light on the deeper past or the development of Madurese maritime capability. Other works focusing on Madurese vessels are those by Wangania (1981) and Sulaiman (1985). But as useful as this body of material is, the series of incisive monographs by Adrian Horridge on the design, construction, and developmental history of major perahu types across the archipelago (1978, 1979a, 1979b, 1982) has not been complemented by a similarly detailed study of the transport vessels of Madura, despite the economic importance of these vessels and the uniqueness of their designs.

More significantly, despite the reputation of the Madurese as seafarers and Dick's assertion of them as the rivals of the Bugis and Makassarese in seafaring and trading (Dick, 1975a: 74), there has been no major historical or ethnographic study devoted to their maritime activities, which are frequently alluded to but rarely described in any detail. Dick's long 1975 article makes many passing references to the Madurese, but almost all of his examples come from the Bugis and Makassarese. Similarly, Lips (1993) does not neglect to mention the Madurese in his study of the development of small wooden motor ships of traditional construction but modern form, but the examples he provides are from South Sulawesi, North Sulawesi, and Riau; while Evers (1983) mentions the Madurese along with other maritime groups in his article on traditional trading networks in the region, but he gives no examples of Madurese networks nor any hint of their nature.

The one major study to pay close attention to the Madurese is that of Hughes (1984). Hughes' study was not about the Madurese as such, but his fieldwork was wide-ranging, and apart from in the perahu harbours of Jakarta included visits to three important perahu centres: Bira in South Sulawesi, the Tukang Besi Islands near Buton, and the village of Telaga Biru in Madura. The comparison Hughes draws between Bira and Telaga Biru forms one of the highlights of his study; but as valuable as his material is on the process of change in the fleet of Telaga Biru, it nevertheless remains a limited coverage of Madurese transport perahu activity overall.

Not only are the Madurese conspicuously under-represented in studies relating to perahu shipping and maritime communities, but even within the field of studies of Madurese culture and society, the maritime culture and perahu shipping of Madura have been almost entirely ignored by both indigenous and foreign researchers. In the most complete bibliography of literature pertaining to Madura, that compiled by Smith (2001), by far the most commonly occurring topics of Madurese culture and society are those reflecting the Madurese obsession with the bovine: cattle rearing, bull racing, and bull fighting. Fisheries and salt production are also well represented. But of the vast number of titles listed, only a single one, that of Cordes (1937), contains any reference to maritime transport activities; and even then, the topic of 'freight shipping' stands together with fisheries and cattle-rearing, and in a brief article at that. It might be expected that the invigorated academic interest in

Madura since the late 1970s, when the Madura Research Project was established under joint Indonesian and Dutch auspices, would have produced a major investigation of the maritime transport field which might rank, for example, with Masyuri's social history of the fishing industry of the north coast of Java and Madura (Masyuri, 1996). But this has not happened.

Within the field of studies specifically concerned with Madura some serious interest has been shown in Madurese fishing communities and the fishing economy, both by foreign researchers (Jordaan and Niehof, 1980 and 1982; de Jonge, 1989: 117-132)¹⁰ and Indonesian scholars, the latter category most outstandingly represented by the maritime anthropologist Koesnadi (Koesnadi, 2002). But of the maritime transport world of the Madurese nothing has been published. Despite the widely held perception of the Madurese as a maritime people, the uniqueness of their traditional vessels, and the economic importance of their role in maritime transport, it seems that for anthropologists and social historians this aspect of the culture and society of Madura has been all but invisible.¹¹

The Java Sea timber trade

The exploitation of Kalimantan's forest resources is a major environmental issue which has received much attention in recent years, both within and outside Indonesia, and this trend appears certain to continue with increasing concern over the rapacity of logging, much of it illegal. In the large body of literature dealing with forest resource exploitation in Indonesia, four themes predominate: foreign involvement and complicity in the industry, public policy and forest resource management, the political economy of the industry, and social and environmental concerns. These four themes moreover frequently overlap and complement one another within the same work.¹² However, an important aspect of the Kalimantan timber trade which has not received serious scholarly attention is the movement of timber from Kalimantan to Java, mainly for domestic consumption.

The process of movement of wood from logging areas to major markets has always been critically important in the timber industry in general. In the case of the Java Sea timber trade, virtually since the start of the timber boom during the 1960s this carrying of timber has been dominated by perahu. As the carrying of timber has been the major line of work for

¹⁰ The interest of each of these three authors in the local fishing industry was aroused during extended fieldwork in Madura for other research projects not connected with fishing.

¹¹ This statement takes into account Indonesian scholarship, most significantly from the Centre for Southeast Asian Maritime Studies at Diponegoro University, Semarang; The University of Jember, in East Java, the most important institution for studies of Madurese society and culture; and Trunojoyo University of Bangkalan, the largest university on Madura. According to the maritime anthropologist Koesnadi, of Jember University, perhaps the most appropriate Indonesian academic figure to comment in this respect, the maritime transport world of the Madurese has been entirely neglected by indigenous scholars (pers. comm., 14/7/2003).

¹² Among the most significant works on of the exploitation of Kalimantan's forest resources are Gillis (1988), Hurst (1990), Potter (1988, 1991, 1996), Dauvergne (1997, 2001), and McCarthy (2001a, 2001b).

Madurese vessels for at least the past three decades, this movement of timber from Kalimantan to Java naturally receives close attention in this study. In the process, significant insights are revealed into the nature of this timber trade.

Although this coverage of the Java Sea timber trade is only from the perspective of Madurese involvement, much of what is revealed here also applies to the other maritime *suku* involved in this trade, the Bugis, the Makassarese, and the Mandar.¹³ But in addition to the general value of the material concerning the movement of timber from Kalimantan to Java, the Madurese role in this trade is of special relevance and interest for three reasons. First, among the maritime ethnic groups it has been only the Madurese who set up their own ‘private’ timber ports, for the use of Madurese vessels only; and these ports on Madura became very convenient places for avoiding official attention and the payment of taxes associated with the importation of timber into Java. Second, by comparison with the other maritime *suku* in the timber trade, the Madurese role has been more pervasive, with many Madurese entrepreneurs involved in the trading of timber, and some also operating sawmills in Kalimantan. Third, three times in recent years – in 1997, 1999, and 2001 – Madurese settlers in Kalimantan have become the targets of savage pogroms aimed at ‘ethnic cleansing’, and following the latest conflict all Madurese resident in Central Kalimantan were forced to flee that province. In the aftermath of that violence, Madurese vessels were unable, for fear of their crews being murdered, to sail to some places in Central Kalimantan where they had previously regularly loaded cargoes of timber. Meanwhile, the other maritime groups were able to conduct business as usual. For some Madurese maritime entrepreneurs this was a critical period, and the story of the strategies they devised in order to survive economically in the face of this crisis deserves to be told.

Framing of the study

The latter part of Chapter One is concerned with the approach to the study, sources, and methodology.

Chapter Two provides background information concerning indigenous shipping in Indonesia. It opens with a glance at the *Pelayaran Rakyat* at the present time, followed by some notes on relevant geography and weather patterns. It then presents an historical overview of indigenous shipping and trade from the sixteenth to the twentieth centuries, showing the gradual decline of perahu shipping against more modern shipping, and the factors behind its survival until the second half of the twentieth century. Finally, the chapter looks at perahu shipping historically from the standpoint of ethnicity, in order to place the Madurese in the wider context of the commerce of the Java Sea basin, especially vis-à-vis

¹³ Butonese involvement in the transportation of timber to Java has been minor.

the Javanese and the maritime groups from Sulawesi. In the light of the historical material presented here, it is apparent that the enduring success of the Madurese as seafarers and maritime traders is a special case running against the current of broader events.

Chapter Three examines the various factors which have contributed toward the shaping of the Madurese as a maritime and trading people. The Madurese are of course an island people, but their success in the maritime sphere also owes much to the ecology and demography of Madura, a densely-populated and agriculturally deficient land which contrasts starkly with the lush countryside typical of Java and Bali. This difference in ecology and landscapes is reflected in a similarly strong contrast of cultures between the Madurese and their near neighbours. The notion of ethnic difference, while in part a Javanese construct of the 'Other', is thus strongly founded. But while the seafaring capability of the Madurese contributes to this perception of difference among the 'agricultural' Javanese and Balinese, it also owes much to historical circumstance. This is particularly so in relation to the commodity which above all else has been associated with Madura, salt. The latter part of the chapter outlines the official policy which led to Madura becoming Indonesia's 'island of salt', and the significance of this for local vessel owners at a time when perahu fleets were coming under severe competition from European shipping, especially steam shipping. Another major cargo for Madurese vessels was cattle, and this commodity also has special associations with Madura. The treatment in this chapter of these two commodities paves the way for a detailed consideration of the commodity of timber, in Chapter Five.

Chapter Four introduces the main nodes for transport perahu ownership around Madura. These nodes are widely dispersed, but form three discrete areas: the northwest coast, the south coast, and eastern Madura, including outlying islands. Each of these three maritime areas is represented by its own distinctive traditional vessel type, with all three types flourishing until recently. Given that the Madurese comprise a single ethnic group with a common language,¹⁴ the existence of these three different traditional vessel types, each lying outside the mainstream of modern perahu design, is unique in modern Indonesia. The main centres of activity in each of the three maritime areas are described, along with notes on their economy prior to involvement in the Java Sea timber trade from the late 1960s onward. From this it is apparent just how important were the commodities of cattle and salt for the survival of these local fleets in the face of competition from land transport and modern shipping. The concept of the three maritime areas of Madura is important in this study, and is carried through until the end of the thesis.

¹⁴ Davies (1999: 1) notes three 'mutually intelligible' dialects of Madurese: western, central, and eastern. The differences are however minor only, and are no barrier to communication regardless of where in Madura speakers and listeners come from.

Chapter Five focuses on the dominant cargo item for perahu during the past few decades, timber. It considers the special characteristics of timber as a commodity: the abundance of the raw material, the remoteness of resource areas from the main centres of population, and the low technology and capital requirements for extraction. The historical background of large-scale timber extraction in Indonesia is outlined, followed by the expansion of the timber sector under the New Order. Consumption patterns are noted for the domestic market, and this market contrasted with the export market. The chapter then discusses the particular problems of timber as a transport good, and explains why perahu came to dominate in this trade despite the view of the New Order's timber supply planners that the movement of timber from Kalimantan to Java should be performed mainly by specialized modern shipping. Indeed, the state was never in full control of the domestic timber trade, which took its own path in response to market forces and the special commodity characteristics of timber.

Chapter Six explains the Madurese role in the movement of timber from the Outer Islands to Java from the late 1960s to the mid-1990s. The early part of the chapter focuses on the importation of timber through Jakarta. This trade was virtually entirely illegal, with significant loss of revenue for the state. Because the term 'illegal' has been used so loosely in the literature and in press reports with regard to the domestic timber trade, this matter is clarified, and the concept and application of the 'timber transport permit' – a document of much importance in this study – is explained. In the mid-1990s Madurese vessel operators ceased carrying to Jakarta and concentrated instead on the Central Java ports of Juwana, Semarang, and Tegal. The major timber ports of Central Kalimantan – Sampit, Kumai, Sukamara, and Katingan-Mendawai, are also introduced here. The last part of the chapter focuses on the rise of the port of Pasuruan, the easternmost timber port in Java, and the emergence of Telaga Biru and Sepulu, on the north coast of Madura, as major transit destinations for extralegal timber bound for Java.

In contrast to the buoyancy and optimism of the period covered in Chapter Six, Chapter Seven deals with a new era in the Java Sea timber trade, characterized by major setbacks and general uncertainty. In 1997 the state took a strong stance on illegal timber shipments to Java, with numerous police raids in ports along the north coast. At around the same time the rupiah plummeted, resulting in a long-turn economic downturn and huge increases in the cost of machinery and spare parts. For Madurese vessel operators and entrepreneurs a new crisis arose in 2001 with the ethnic conflict centred in Sampit, in the aftermath of which Madurese vessels could not go to the two major waterways of Central Kalimantan, the Katingan and Mentaya rivers. A further setback occurred following the implementation of the Regional Autonomy laws in January 2001, with districts in Central Kalimantan charging new taxes on timber, significantly increasing the cost by comparison

with timber from South Kalimantan. Meanwhile, by 2002 the ‘wild’ ports of Madura, and especially Sepulu, had become a major target of police ‘operations’ intended to eradicate evasion of timber revenues to the state.

Chapter Eight reveals the actual operation of the timber trade as engaged in by Madurese vessels in 2002-3. Three different timber trajectories, each with features significantly different from the others, are described. The first case, the Sukamara-Juwana route, emphasizes the facilitative role of the shipping agent as well as showing the special nature of the timber importing business in Central Java, with organized corruption a standard feature. The second case, the Kintap (South Kalimantan)-Pasuruan route, emphasizes the trading role of many of the vessels bringing timber to Pasuruan, with the vessel owner also the purchaser of the timber; while the third case, the Sungai Kaki (Central Kalimantan)-Sepulu route, takes the reader to an area where the forest resource has been severely depleted as a result of illegal logging. The coverage in this chapter provides significant insights into the nature of the domestic timber trade, including the levels of illegal timber in shipments, the role of unlicensed sawmills, the process of obtaining timber transport permits, the transshipment of illegal timber to other parts of Java, and a full breakdown of costs and profits, including earnings for skipper and crew.

Chapter Nine focuses on the maritime culture of the Madurese, through career profiles of six successful individuals. In their backgrounds and business approaches these six individuals all differ from each other; and importantly, each of the three seafaring zones around Madura – the northwest coast, the south coast, and the eastern islands – is represented. As well as revealing personal backgrounds, motivations, and setbacks and successes, the material in this chapter highlights the risks these vessel operators face, both physical and financial, and the vulnerability of the large investment in the vessel in an economy with no insurance. The last part of the chapter briefly considers the Madurese as seafarers by comparison with the Bugis, and in the process notes differences between the maritime cultures of East and West Madura.

Chapter Ten, the Conclusion, reviews the factors that shaped the seafaring capability of the Madurese, as well as the importance of the economic niche which they were able to occupy through the economic development which took place from the late 1960s onward, enabling them to continue to operate in an era otherwise increasingly dominated by modern shipping. The continuing viability of this niche depends however on the forest resource itself. There has been a significant decline in the overall quality of timber coming into Java over the past two decades, and diversification away from total reliance on the timber trade will become increasingly important in the future. The vessel operators from West Madura – the northwest coast and the south coast – are generally less well prepared for this challenge than their counterparts from East Madura, and the roots of this difference are considered.

Approach, sources, and methodology

Geographic scope of the study

For an ethnographic work, the locus of this study is unusually dispersed. Most ethnographic studies focus on a single community, and this has also been the case in studies of seafaring groups in Indonesia. Thus Southon (1995) in his study of Butonese seafarers, and Amarell (1999), in his study of Bugis navigation, obtained virtually all their field material from single communities, notwithstanding that both the Butonese and Bugis are widely dispersed as maritime peoples. But in the case of Madura, with its three parallel maritime traditions, each in its own geographic zone, to focus on any one place would inevitably fail to inform about the others; while the scope for dealing with Madurese involvement in the timber trade would also be restricted. Given that knowledge about the seafarers of Madura is so limited and that the phenomenon of the three traditions is so remarkable, I decided upon a total approach that would include all three zones. Consequently the coverage of some places is thinner than might be desired, but this disadvantage is more than offset by the comprehensive view the study offers of the Madurese as a maritime people.

Naturally this more encompassing approach entailed logistical difficulties, and these were compounded by the need to go beyond Madura itself in order to unravel the workings of the timber trade. Thus in this study of these seafaring people whose economic activities have impacted significantly on social worlds far beyond Madura itself, the ‘ethnographic setting’ includes not only various perahu villages around Madura, but also places in Kalimantan, ports in Java, and even the Java Sea itself.

Temporal frame

Given that the core of the thesis focuses on the Madurese role in the timber trade, the time frame for the study could reasonably have been limited to the last three decades only. But to take such a route would have shed no light on the critically important issue of why the Madurese became such a force in indigenous shipping. These seafaring people of Madura are a striking case, within Indonesia, of Eric Wolf’s ‘people without history’. In his work *Europe and the people without history* (1982), this distinguished anthropologist emphasized the profound significance of capitalist-driven commodity flows for whole populations. The process of economic development and transformation which Wolf wrote about is still taking place in Indonesia, and within that development and transformation the seafaring Madurese have played a significant economic role as movers of commodities, especially salt and timber. Yet their past, like that of the marginalized people whom Wolf had in mind, is hardly known. It is thus important to trace the development of Madurese maritime capability, and to

show how the Madurese were able to maintain their niche as maritime transport operators throughout the twentieth century. However, although the study is in this respect ethno-historical, it does not attempt to present a detailed history extending far into the past. Rather, my aim is to construct a coherent view of that past, in order to serve as a foundation for writing about the much more recent period leading up until the present, as history.

Indonesian shipping and the concept of dualism

With the almost universal use of engines and the general increase in size among the *Rakyat* fleet over the past two decades or so, the distinction between perahu shipping and the small motor ships of the *Lokal* fleet has become considerably blurred, although significant differences remain. But prior to the mechanization of the perahu fleet, the difference between perahu and other shipping was far more obvious. Certainly, perahu were not expected by state planners to compete directly against modern ships, and the name ‘People’s Shipping’ implies a class of vessels intrinsically different from and less efficient than modern shipping, with a connotation of economic dualism.

The concept of dualism was first advanced by the Dutch scholar J.H. Boeke, who argued that this phenomenon occurred whenever an indigenous ‘pre-capitalist’ society came into wide-scale contact with a modern capitalist one – as in his prime example, the Netherlands Indies (Boeke, 1942, 1953). Boeke’s ideas have been widely challenged,¹⁵ and his argument is in any case better suited to agriculture than to shipping.¹⁶ Rather than Boeke’s social dualism, economic thinkers have tended to support the theory of technological dualism as espoused by Benjamin Higgins, who has argued that the ‘dualism’ apparent in developing countries between traditional or informal economic sectors and modern industry is essentially a matter of technological difference, and can be explained by standard economic and social analysis (Higgins, 1959: 17-20). However, Indonesian economic and shipping specialist Howard Dick regards the chief proponents of this theory – Higgins, and Eckhaus (1955), both American-trained – as lacking Boeke’s depth of understanding of traditional Javanese society, and dismisses the theory of technological dualism as ‘static’ and ‘hollow’, and inadequate to explain why major technological

¹⁵ Mackie (1980) summarizes Boeke’s theory of dualism together with the arguments against it. Although Mackie acknowledges the sharpness of the contrast between the indigenous and foreign sectors in the Netherlands Indies by comparison with other Asian areas under European rule, as well as the persistence in modern Indonesia of situations which appear dualistic, he rejects Boeke’s notion of a fundamental ideological cleavage between indigenous society and foreign or foreign-influenced elements.

¹⁶ The indigenous element in Boeke’s dualism was represented primarily by traditional agrarian society (Boeke, 1953: 2). While that society may have been essentially autarkic, at least in the major wetfield rice areas of Java, that description certainly did not apply to indigenous shipping along the north coast of Java, with capitalism a significant feature of the maritime economy even in pre-European times (see Nagtegaal, 1996: 110-112).

differences persisted for so long on the Indonesian maritime scene (Dick, 1980: 364-366). In this respect, Dick draws attention to not only the technological difference between perahu and modern shipping, but also the difference in their modes of organization (1980: 349).

But despite his limited support for Boeke,¹⁷ Dick concludes that the impression of dualism conveyed by the contrast between perahu and modern shipping in modern Indonesia is illusory. He argues that true dualism in Indonesian shipping was limited to the period between about 1890 and 1942, during which time the Dutch shipping line, the Koninklijke Paketvaart Maatschappij (KPM), dominated the shipping industry, with perahu shipping driven to the periphery of maritime trade; and that in the post-Independence era there has been no real schism between the perahu and modern shipping sectors, which despite their differences in technology and organization have meshed together to provide a wide range of shipping services for the archipelago (Dick, 1980: 351). This is in my view a significant statement, which places perahu shipping in its proper economic perspective in relation to modern shipping. However, although I have no disagreement with the general validity of Dick's argument in this respect, some of the material presented in this thesis rests uneasily with his concept of all shipping in the archipelago being ranged along a continuum.

Dick states that if the term dualism is to be used meaningfully with regard to Indonesian shipping, it must refer not only to differences in technology and organizational structure, but also to a 'lack of articulation' with other shipping services (1980: 351). Most *Rakyat* shipping does not meet these conditions, especially if the net is widened to include lack of articulation not just with other shipping services, but also with modern industry.¹⁸ But in my opinion some Madurese perahu shipping did until recently meet these criteria for dualism, and the case for this will be argued in this thesis. The entrepreneurs concerned were certainly motivated in the usual commercial sense, but the style of their operations reflected a 'social' difference, to use Boeke's epithet for his dualism, which put them at odds with mainstream perahu shipping, and even the state itself. This dualistic aspect of their maritime economy has now largely ceased, but the social difference, the nebulous factor around which Boeke's ideas were based, remains; and its influence can be observed in the difficulties in the communities concerned in adapting to the conditions of the twenty-first century.

¹⁷ Although acknowledging that Boeke was essentially correct in his perception that the indigenous attitude to economic enterprise was significantly different from that of the Europeans who came to the archipelago, Dick nevertheless regards Furnivall's pluralism as a more flexible and encompassing model, and criticizes Boeke for his failure to adjust his thinking in the light of Furnivall's work (Dick, 1980: 366-367).

¹⁸ For example, the maritime economy of the Butonese, who have been much involved in trading as opposed to freight work, might at first consideration be regarded as dualistic. But the most important cargo line for Butonese vessels until recently was copra, supplying modern industry in Java.

Commodity focus

Notwithstanding the ethnographic nature of this study, there is within it a deliberate emphasis on the commodity of timber, in order to highlight the social significance of the circulation and exchange of that commodity. The theoretical argument for this has been presented by Arjun Appadurai in his introduction to the book *The Social Life of Things* (1986). Appadurai's emphasis on the social significance of circulation of commodities follows the work of Wolf, whom Appadurai acknowledges for the historical context he provides in this respect (1986: 5).

Where Appadurai leaves Wolf and his fellow-writers on commodities in history behind is his emphasis on demand and the cultural construction of value. The argument which he presents in this respect is however more applicable to special goods, such as luxury items, than to primary or bulk goods such as rough-sawn timber. Nevertheless, Appadurai points out that that a commodity perceived as mundane in one context can become special in another context, and vice versa; and that the distinction between the exotic and the mundane is not necessarily a difference of essence, but more often a difference in demand over time, or perhaps a difference in the productive and consumptive foci of a commodity. He offers the example of sugar, which once signalled a good deal more socially than it does now as a commonplace item of consumption. There is a vague resonance here with timber, which is now much less plentiful and much more expensive than it once was, and also arguably more appreciated for its aesthetic qualities than was formerly the case (the inverse of the changes in social value attaching to sugar). Indeed, the example of teak timber in Java, noted in Chapter Five, is an excellent case for the application of Appadurai's 'cultural' analysis toward a commodity.

But as useful as Appadurai's analytical approach may be with regard to timber, or at least certain categories of timber, of greater importance for this study is the matter of the specific characteristics of timber as a commodity – that is, as something extracted or processed for market purposes. This emphasis on the specific characteristics of a commodity was pioneered by Harold Innis (1956) in his study of the problems of development in Canada from a natural resource base of forests, furs, and fisheries, and the concept was subsequently expanded and applied more rigorously by Barham, Bunker and O'Hearn (1994) in their study of the world aluminium industry. The latter authors argue that the organization and market structure of an extractive-processing industry are influenced by five specific characteristics of the raw material required: demand, relative scarcity, technology of extraction and processing, and geographic and environmental location. Following Barham, Bunker and O'Hearn, these same raw material commodity characteristics were applied to timber by Paul Gellert (1998) in his study of the political economy and ecology of the Indonesian timber industry. Gellert shows convincingly that the extent to which the

Indonesian state has been able to garner economic rents from timber has been much influenced by the specific commodity characteristics of timber, using the comparative case of oil, with its own set of commodity characteristics, to prove the point. In common with most of those who have written at length about the Indonesian timber industry, Gellert is concerned with only the export sector, and does not attend at all to the domestic timber market. Nevertheless, the determining influence of the five basic commodity characteristics of timber applies equally well for the domestic market. However, my main concern in applying this approach is not to gauge the extent to which the state has been able to obtain economic rents from timber for domestic consumption, but rather the way in which the specific commodity characteristics of timber have allowed Madurese maritime entrepreneurs to obtain a social and economic niche which they have exploited with great success.

A methodological note on fieldwork

This study depends primarily upon fieldwork carried out in Indonesia in 2002-3, supported by shorter field trips between 1998 and 2001; and it also draws on earlier observations in Indonesia, and especially Madura, going back to 1974. All interviews and conversations with informants were in Indonesian, in which language I am competent. The names of some of the key informants have been changed in this thesis, to respect their privacy.

This fieldwork was supplemented by research into the literatures of Madurese history, Madurese society and culture, indigenous shipping, and the timber trade. But whereas my field experience provided sufficient opportunity to observe the scope and nature of the contemporary maritime economy of the Madurese, to understand the deeper past for these ‘people without history’ was more difficult. Among works shedding light in this direction, de Bruyn Kops (1854), Hageman (1858, 1862, 1863), van der Kemp (1894), Kuntowijoyo (1980), de Jonge (1989), Knaap (1996), Husson (1997), and certain of the reports to the Inquiry into the Declining Welfare of the Indigenous People of Java and Madura (1905-09), were especially useful. But as valuable as these and other historical sources were, literature sources alone were not enough to form a coherent view of the past of the seafarers of Madura. Major gaps loomed in my knowledge. Why, for example, were none of the three traditional Madurese vessels of the twentieth century mentioned at all in de Bruyn Kops’ comprehensive 1854 listing and descriptions of perahu types? What happened to the few large native-owned vessels with European features – schooners and *toop* – listed in the *Regeerings-Almanak* for Sampang, Pamekasan, and Sumenep around 1870,¹⁹ and why

¹⁹ Noted in Kuntowijoyo, 1980: 128-129. The schooner was of course a European vessel, while the *toop* was similar in build to European vessels, including often with a central rudder, but with an indigenous sailing rig (de Bruyn Kops, 1854: 33-37).

was there no influence at all of these hybrid types, the cream of the contemporary indigenous fleet, in twentieth century Madurese vessel types? Why were the twentieth century vessels of East Madura so different from those of West Madura? The answers were to be found in the field, but it took a long time before I was able to discern them.

In this respect I had a further significant field resource, in the form of the vessels of Madura. In his study of the Parava fishermen of the coast of Coromandel, Patrick Roche reflected, with a harbour scene in his mind's eye, that "there, in the inert log of the abandoned cattamaram, the bounding vallam, and the thonis ringing the cargo vessels, was written the history... of the whole Parava jati [caste]." (Roche, 1984: 193.) This sentence is more than merely evocative. A similar statement could be made for any of the major maritime groups of Indonesia, but especially so for the Madurese, a people whose traditional vessels were of extraordinarily diverse and distinctive design, and who resisted change and outside influences longer than any of the other major maritime groups of the archipelago. Very few Madurese vessels these days are really traditional, but the changes in this respect have been only recent, and reflect changes in the perception of the maritime entrepreneurs of Madura about their own material culture and their place in the world. I was fortunate to have had a rich experience of the traditional vessel types, which in addition to their economic role served as cultural markers for the groups who built and used them, constituting a set of signs informing about the maritime traditions of Madura – and also, in conjunction with other sources, pointing the way into a deeper past beyond living memory.

For the more recent past I relied upon that 'living memory' through oral history techniques, encouraging older men – and occasionally, women – to talk about earlier periods of their lives and their work then. This was not as easy as might be expected, because the economic changes that have taken place in this strand society over the past three decades have been so great that there is little interest in the past, other than in religious or family matters. What matters is the present, especially because people are generally more prosperous today than in the past. Why dwell on times when life was harder?

This is of course not very different from modern industrialized society, with a far higher standard of living than was the case sixty or seventy years earlier, and a great range of conveniences and pleasures which few people, including the elderly, would want to do without. But from the historian's perspective, this great difference and apparent distance from just a few decades earlier is compensated for by the many older people in modern society who are willing, and even feel compelled, to talk at length, or write, about the early phases of their lives. This desire arises because these people are aware that the past is increasingly being erased by progress and change, and for that very reason deserves to be recorded.

Unfortunately, such interest in the past is much less apparent among the maritime communities of Madura. Because of the scope and rate of change in recent times, many people in these communities are of course aware that things were not always as they are now, but the past is unimportant to them and as a result quickly forgotten. This is no loose statement, as the following two examples from my own experience illustrate.

In 1984 I visited the small tidal estuary of Polagan, near the town of Sampang, and saw a substantial fleet of traditional perahu on the beach there. These vessels were in service, not derelict, and they were based at Polagan, from where they carried salt. But when I revisited this place in 1999, the scene had changed greatly, with the tidal flats of the estuary almost entirely reclaimed, and only a very narrow channel remaining. There were only a couple of small sampan, and no cargo perahu. Indeed, there was no space for such bulky craft. I spoke to several local young men about the perahu fleet that had once been based there, but none of them had any knowledge of this. They doubted the veracity of my information until I – by then, with historical instincts aroused – found a man aged in his fifties who not only clearly remembered the colourful scene that I had witnessed myself fifteen years earlier, but also provided me with valuable additional information about the vessels which used to carry salt from Polagan.²⁰

The second case concerns the timber trade. When I was in Madura in early 1998, perahu operators were filled with consternation because of an official crackdown in the East Java port of Pasuruan on the carrying of illegal timber. This crackdown had begun in November 1997, and so great was the dismay that many people in these circles talked of little else for months afterward. However, in 1998 and 1999 perahu calling at Pasuruan were targeted less frequently by officials, and business again thrived. Four years later, in 2002, I asked numerous people from the same area about when officials had begun to demand documentation for timber. Remarkably, none of my respondents mentioned the 1997 episode, which seemed to have vanished into the past, and most were firmly of the opinion that the tough official stance had only begun in 2002.

There was no reason why these informants should have suppressed mention of the earlier episode, except that it did not loom large in their consciousness because the problem had turned out to be temporary. Subsequently, I did obtain a better historical overview of the enforcement of the timber transport regulations from well educated informants within the timber industry in Java. But for the people of these isolated strand villages the present has always been what matters. Again, this may seem a universal human tendency, but I suggest that it is particularly so in rural Madura because of the intense cultural emphasis on material

²⁰ The informant concerned was Pak Achmad Dahri, of Polagan, who had made a part-time business out of selling ‘antique goods’ – including elaborately carved special parts of old traditional vessels – to Java and Bali.

advancement, which is in turn connected with the harsh ecology and demography of the island. Nor is there any special place in this society for the raconteur, a type rarely encountered in Madura. The primacy of Islam in Madura contributes to this situation, for even in coastal communities there is much preoccupation with religion, but almost no concern with the profane past, knowledge of which is of no material, social, or soteriological consequence. In earlier times, before the influence of Islamic orthodoxy became as pervasive as it is now, it is probable there was a greater general interest in the past than prevails today. As evidence for this notion, in widely separated places in Madura, well removed from the main currents of religious life, I have encountered people who spoke to me of the 'Lanun' (Iranun), the infamous sea-raiders who regularly visited the north coast and the eastern islands of Madura during their annual voyages during the second half of the nineteenth century.²¹ In each case the informant concerned had heard stories about the Lanun from local elders. It is clear that telling about major events in the distant past was common in earlier times, an expression of the universal folkloric spirit; but that spirit seems now to have been largely sublimated into the recitation of Islamic texts.

Under such circumstances as this the insights into the past provided by informants are but glimpses, and cannot in themselves constitute a chronological narrative. But by coupling these insights with what I learned of Madurese history and of historical works relating to the perahu and trade, a coherent sense of the past of these maritime centres began to form, together with an understanding of the traditional maritime culture which over the past two decades has largely disappeared. In this respect my earlier experiences of ports and vessel types was to prove invaluable, not only in helping me to make sense of statements which might otherwise have remained cryptic, but also because I was able to talk confidently about the traditional vessel types, including using them as a mnemonic device to encourage older men to talk about their sailing days.

Even when inquiring into the contemporary timber trade it was no simple matter to establish an overview. Very few men in these perahu villages have a sound overall knowledge of the timber supply industry, with its ecological implications and its legal-administrative aspects, or even of where vessels from parts of Madura well removed from

²¹ The Iranun, originally from the Sulu region, were the most feared sea raiders in all Southeast Asia. Their piratical activities from the late eighteenth century onward were on a large scale, and they specialized in the capturing of people to provide labour for the maritime and forest produce trades in the Sulu sultanate, with these trades supplying the British with goods which they could in turn export to China. The traditional annual route of the Iranun was southward from the Sulu Sea around the east coast of Sulawesi, before heading westward and passing through the Makassar Strait to the east coast of Borneo. After 1861-62, however, the Iranun sailed directly from the Sulu Sea to the east coast of Borneo, and from there went south through the Makassar Strait and across the Java Sea to the island of Kangean and the small island of Guwaguwa, situated off the eastern end of Madura. From Madura they headed northwest to Bawean, then to the south coast of Borneo, proceeding westward along that coast before splitting up into three groups as they sailed into the South China Sea (Warren, 1981: 146, 161; 2002: 55). The stories of the 'Lanun' mentioned above clearly fit the later route description.

their own area obtain or discharge timber. Most are familiar only with their own economic niches. Consequently, the building of a comprehensive understanding of this maritime transport scene was a gradual process depending on many informants from different walks of life and places: vessel owners, skippers, ordinary crew members, boatbuilders, sawmillers, timber wholesalers, local government officials, port officials, shipping agents, forestry officials, and water police.

Finally, the information obtained in the field and presented in this thesis has in most cases been checked and confirmed many times over. In so far as possible I endeavoured to use informants who were knowledgeable, and any startling information was always followed up thoroughly. Sometimes I was skeptical about certain information, especially about the past, only to have it eventually confirmed from other sources, including historical ones. But I also learned not to make assumptions, even about the seemingly obvious. The two incidents related above exemplify the danger of accepting information unreservedly, without further inquiry; but I will add one more example to illustrate the danger of making assumptions in a social and economic context so vastly different from one's own.

In 1998 I spent three months in a perahu village with extensive private salt holdings nearby. The salt is obtained by evaporation from seawater, which must be lifted from the natural tidal level into large shallow ponds where the evaporation takes place. This lifting of water is achieved by crude windmills, with the turning power of the blades converted into lifting power by means of an ingeniously adapted bicycle pedal mechanism, with one pedal arm bolted to one of the windmill blades a short distance out from the hub, and the other pedal arm attached to a vertical pole with a bucket at the end. I knew that the salt industry had been greatly expanded in Madura by the Dutch, and there were many old Dutch houses near the village in which I was staying. Since the Dutch were also famous for their use of windmills, I assumed that this technology of using windpower to lift water must have been learned from Dutch workers in the salt industry. But when I mentioned this to a middle-aged friend who was a professional salt pond worker – indeed, acknowledged by all in his community for his expertise – he informed me that this windmill technology had been worked out only a few years earlier, and that prior to that the water had been lifted by manpower, using a pole resting on a fulcrum with a container on the far end of the pole!

That incident was one of several salutary lessons I learned about the need to remain open-minded and to base my conclusions on what I observed, rather than on pre-conceived notions. During later fieldwork, when I was striving to make sense of the welter of often conflicting information I received about the timber trade and the maritime economy of the Madurese, those lessons were to stand me in good stead.

CHAPTER II

Major patterns in indigenous shipping from the seventeenth to the twentieth centuries

Because any in-depth study of the seafarers of Madura and their current economic role must be situated in the context of the wider perahu shipping sector in which the Madurese have historically operated, this chapter sets out essential background material concerning indigenous shipping in the archipelago. It opens with a sketch of the contemporary perahu shipping scene, followed by some notes on the geography of the Java Sea from the perspective of indigenous mariners, especially the Madurese. The greater part of the chapter is however historical, leading up to the demise of Javanese participation in indigenous shipping during the nineteenth century and the dominance of groups from South Sulawesi. These broad events will serve to highlight the singularity of the Madurese as the only maritime group of the central archipelago who have continued to operate as maritime transporters and traders throughout the modern era.

A glance at the Pelayaran Rakyat at the end of the twentieth century

As noted in Chapter One, modern perahu shipping is dominated by entrepreneurs and sailors from five ethnic groups, the Bugis, the Makassarese, the Mandar, the Butonese, and the Madurese. The Bugis and Makassarese can be conveniently grouped together because apart from their geographic proximity – and in Makassar itself, overlap – and the great commonality between their cultures, these two groups operate the same sort of vessel: the *pinis*, or as it usually appears in recent literature, *pinisi*, the largest perahu type.¹ The most

¹ The standard term used by the people who worked these vessels is – or at least, was until recently – *pinis*, a derivation from the English word ‘pinnacle’. The same basic word, *pinas*, was also used in Holland in the seventeenth century; but as it was not adopted by the Bugis and Makassarese until around the start of the twentieth century, and was already then in use for substantial two-masters from Kuala Trengganu on the Malay peninsula, it seems likely that the route of transmission was from European vessels, via Singapore (see Gibson-Hill, 1949, 1952). Collins, who had one of these vessels built for him in the 1930s in Bira, South Sulawesi, used the term ‘prahoe palari penis’ (Collins, 1936: 11-12); Nooteboom (1940: 26) mentions the European-influenced *pinis* sailing rig; while Gibson-Hill, a stickler on nomenclature, notes that Bugis sailors in Singapore referred to their vessels as *pinas*, but that the proper term was *palari pinas* (Gibson-Hill, 1950: 121). Gibson-Hill was used to the Malay spelling, *pinas*. However, none of these writers mention the term *pinisi*. It seems likely that the latter version was the creation of an Indonesian journalist, or museum or port official, preferred because of its pleasing cadence or because it sounded more in keeping with the Makassarese language, and which subsequently gained parlance with port officials. Both Dick (1975a) and Horridge (1981) use *pinisi* only; but as late as 1983, when I sailed on one of these vessels (still engineless, with full sailing rig) from Gresik to Banjarmasin, the only term used by the sailors themselves was *pinis*. Similarly, Burningham and Mellefont (1996: 102) affirm *pinis* as the standard term among perahu sailors, while at the same time noting the proliferation in the literature of *pinisi*,

important port in Java for these craft is Sunda Kelapa, in Jakarta, where they discharge timber from Kalimantan, and load cement or other bulk goods for the outward voyage; but they can also be seen in other ports in Java, especially Surabaya, Gresik, and Semarang. In their ‘traditional’ form, common up until around the late 1970s, these vessels had very small deckhouses with most of the crew sleeping on the deck, and were ketch-rigged with standing gaffs, loose-footed mainsail, and three staysails setting out on a very long bowsprit. This full sailing rig faded out after engines became standard in the early 1980s, and most today have only one mast with a short bowsprit, and large deckhouses. The two masted rig has however come back into popularity for the very largest vessels, although the sail area is small for the size of the ship.



Photo 1: Large motorized Bugis vessel, heavily laden. The forward topmast has been lowered, and the after one has been partly lowered. Despite the 500 h.p. engine, the traditional lateral rudders have been retained.

Apart from these large vessels there are also smaller Bugis craft involved in the timber trade, rigged as sloops with triangular mainsails, in many cases with no reduction in sail area despite the installation of a diesel auxiliary engine. These smaller Bugis perahu are mainly from Makassar, or the port of Bima in the eastern part of the island of Sumbawa. They do not usually sail to West Java, and most commonly call at the ports of Gresik or Pasuruan in East Java.

and even *phinisi* – with a museum booklet from Makassar offering etymologies of either a fish species, or the port of Venice which Indonesian spice traders supposedly visited in the distant past!

Mandar perahu are smaller than the largest Bugis vessels, but substantial craft nonetheless. The vessels are remarkably standard in design, and unlike the large Bugis perahu their general appearance has changed little as a result of motorization. They are usually rigged as sloops with triangular mainsails. They can easily be distinguished from the smaller sloop-rigged Bugis craft by the characteristic Mandar superstructure, a long and high ‘deckhouse’ with the sides canted inboard directly from the top of the hull proper, without any side-decking. Some of these vessels operate between the east coast of Kalimantan and South Sulawesi, while for those carrying timber to Java the port of preference is Pasuruan.



Photo 2: Mandar vessel, with the characteristic raised deck. The rudders are stowed on top.

Butonese perahu are also rigged as triangular mainsail sloops, and although now nearly all have engines their appearance afloat is also much the same as when they worked under sail alone. These vessels, called *lambo*, are easily recognized by their broad counter sterns, a feature of obvious European origin.² The economic standby of Butonese vessels has

Although it may seem a minor issue, this concern over terminology and etymology is not just a matter of pedantry: it is also instructive, reminding us of the importance of primary informants.

² All traditional vessel types in the Indonesian archipelago were double-ended. In his study of the *lambo*, Horridge draws no firm conclusions on the origins of the type, but leans toward a spread into the Molucca Sea from the southern Philippines, after a type introduced there by an American in the 1860s (Horridge, 1979a: 6). But it is almost certain that the *lambo* was a derivation from the Australian pearling ‘lugger’, large numbers of which were based in Aru, eastern Indonesia, in the early twentieth century (see Kerr, 1985: 240). The Butonese have been the leading exponents in Indonesia of the counter-stern, but the form was widely copied in the second half of the twentieth century by Bugis builders in South Sulawesi, Bima, and numerous other places around the Flores Sea.

been the copra trade, and their involvement in the transport of timber from Kalimantan has been insignificant. By far their main port in Java is Gresik.

In contrast to the above types, the current vessels of the Madurese are much less easily recognizable to those not familiar with them. Until recently Madurese perahu were the most traditional and distinctive of all transport perahu types in the modern era, but at the present time they form a motley group. Some are nearly as large as the big Bugis perahu, and look somewhat like them (Photo 3), although sails are almost never used. Many other Madurese craft are smaller and double-ended with straight and strongly raked stem and sternposts with ungainly deckhouses perched right aft (Photo 4), while others are hybrid types mixing various traditional bow and stern styles with incongruent superstructures and ‘modern’ sailing rigs. Finally, there is still a substantial fleet of engineless perahu from Madura involved in the timber trade. These are the only engineless vessels left in this trade, but again, their large aft-deckhouses and broad sloop rigs are departures from tradition.



Photo 3: Large Madurese vessel beached for maintenance. The lateral rudders have been removed from their gantries, but the central ‘motor ship’ rudder is still in place.

There is no one special port in Java for Madurese vessels. Madurese perahu formerly predominated in the port of Kali Baru, a short distance to the east of Tanjung Priok, Jakarta, but since the mid-1990s they have not called at all at Jakarta, and nor do they now call at Surabaya, which might seem surprising given the proximity of that port to

The name *lambo* implies a non-traditional, hybrid vessel. The same word was used in the seventeenth century for a medium-large vessel of the Malacca Straits area (Knaap, 1996: 155).

Madura. But with these exceptions, Madurese vessels are almost as ubiquitous as Bugis ones, and in 2003 they were still common callers to most of the main ports along the north coast of Java, as well as to various ports in Kalimantan.

The above-mentioned vessels comprise the core of the *Pelayaran Rakyat* at the present time. It is clear even from these minimal descriptions that they are no longer traditional. But they are still traditionally constructed, albeit with modifications in technique and approach, and without formal plans. The impression of contrast between these vessels and modern ships, even ones of comparable size, is moreover greater than might be supposed from the above descriptive notes because of the continuing use of lateral rudders. Of the vessels referred to, only Butonese perahu do not use lateral rudders. Many of the others now have small centreline rudders abaft the propeller, to assist with manoeuvring in confined places (see Photo 3); but large twin lateral rudders, combining the functions of rudder and leeboard, remain standard in all cases. In the modern world, such lateral rudders are unique to Indonesian vessels. Very conspicuous and seemingly archaic from a modern perspective, they have often been erroneously described as steering ‘paddles’ (e.g. Gibson-Hill, 1950: 112), but they are true axial rudders just like central rudders, and a convenient and efficient arrangement for sailing craft, especially ones which routinely take the ground at low tide.

Photo 4: Smaller Madurese perahu, about the minimum size for the current timber trade.



Unlike the vessel in Photo 3, the stern is sharp. The topsides are similar to those on Mandar vessels, except that the centre of the deck is permanently open for convenience in handling timber.

The term *Pelayaran Rakyat*, inherited from the *Scheepsvaart Verordening* of 1935, was officially adopted by the Indonesian government in 1964. The term implied recognition of a transport service which had hitherto received virtually no official acknowledgment, despite both the symbolic and strategic importance of perahu shipping to the nationalist movement (Dick, 1975a: 78-81) and the economic importance of perahu shipping following Independence. This formal recognition was furthered in 1971 with the establishment of Pepelra (Persatuan Pengusaha Pelayaran Rakyat), ‘association of people’s shipping entrepreneurs’, nowadays often referred to as Pelra.³ This organization was set up to serve as a channel of communication between perahu operators and the government, and there are Pelra branch offices in all major ports.

As it happens, ‘people’s shipping’ is perhaps a more appropriate term than ‘perahu shipping’, since over the past thirty years these vessels have increased in size to the point where many of them are now well beyond the size range which could reasonably be expected for a perahu. A typical size for a ‘small’ perahu in the timber trade is around sixty feet on deck by twenty feet beam, with a capacity of around 100 cubic metres of timber, while the larger vessels can be up to a hundred feet long on deck with a capacity of 500 cubic metres or more.⁴ In keeping with the increase in size of these vessels, the term ‘perahu’ has recently been dropped from official classification terminology, and all vessels falling under the *Pelayaran Rakyat* shipping category are now classed as either *kapal layar motor*, ‘motor-sailing ship’ or *kapal layar*, ‘sailing ship’. The maximum size allowed is now 500 gross tons (1415 cubic metres), a figure arrived at to accommodate the largest Bugis vessels; but most of the vessels in the *Rakyat* fleet are less than a quarter of that size, and many less than a tenth.

Nevertheless, the typical vessel size is still much larger than it was in the early 1970s, and much larger still than in 1935, when only 9 percent of perahu were larger than 50 cubic metres (Dick, 1975a: 71). These days 50 cubic metres is widely regarded as too small to be viable, although there are still a few vessels of this size working in the timber trade.

³ ‘Pelra’ apparently became preferred for conversational purposes over ‘Pepelra’ because it was simpler to pronounce. In practice there is no confusion between Pepelra, or Pelra (the association of shipping entrepreneurs), and *Pelayaran Rakyat* (the shipping category).

⁴ The capacity of a perahu is indicated by its registered gross tonnage. The gross ton is a unit of volume, equivalent to 100 cubic feet of useable space on a vessel. The metric equivalent is 2.83 cubic metres. The gross tonnage is calculated by officials using the formula of P (length) x L (breadth) x D (depth of hold) x F (a factor taking the shape of the vessel into account, usually 0.5, but for some more modern types of perahu 0.8), divided by 2.83. In practice usually no more than two cubic metres of sawn timber can be carried per gross ton, rather than the theoretical ideal of 2.83, but this anomaly is more or less offset by the large amounts of timber usually carried on deck. In fact, many vessels carry considerably more than their registered gross tonnages indicate, as the gross tonnages are often understated in order to minimize port dues or to avoid being subject to certain regulations such as the requirement to have a qualified engineer and master. For this reason, the capacity of

The great increase in size since the 1930s took place primarily because of the change from trading to carrying. In the early twentieth century most perahu were trading vessels only, with their cargoes owned by the vessel owner (often an owner-skipper), and earnings coming from profits through buying and selling. For these purposes large size was not necessary, and possibly not even desirable. But during the 1930s and the early post-war years there was a strong demand for cheap maritime transport, and to take advantage of this opportunity increasingly large perahu began to be built. Broadly speaking, it was with this move into pure freight work that the perahu economy ceased to be dualistic, and merged with the mainstream of shipping in the archipelago.

The main competition to perahu shipping is not from the large modern ships of the *Nusantara* fleet, which are organized and operated on a very different basis, but rather the small motor ships of the *Lokal* fleet. Like perahu shipping, *Lokal* vessels are largely free from the bureaucratic restrictions imposed upon *Nusantara* shipping,⁵ and they are furthermore of a size able to compete directly with perahu. They also use the same basic port facilities, with goods being loaded and discharged by manual labour as for perahu. Indeed, with virtually all contemporary perahu motorized and many not bothering to use their sails at all, and with the increase in average size to the point where many *Rakyat* vessels are now as large as most *Lokal* vessels, the distinction between the two categories has become blurred. *Lokal* operators have had better access than perahu operators to state bank credit, and the use of better port facilities in some cases, but these advantages no longer appear significant (Dick, 1978: 249).

With the technological differences between these two fleets now largely disappeared, the advantage has in fact swung to some extent to the *Rakyat* vessels, since they pay only minimal port dues by comparison with the rates charged for *Lokal* ships. To qualify for these minimal port dues, *Rakyat* vessels are supposed to carry sail,⁶ and that sail is moreover supposed to be the primary method of propulsion. In keeping with this intention a simple formula is set out for the minimum sail area allowed, while the power of the engine – specifically referred to in the regulations as the ‘auxiliary’ engine (*pesawat penggerak*

vessels will hereafter be stated not in gross tons but in cubic metres, based on the actual volumes of timber that they have been known to carry.

⁵ The exemptions for *Lokal* shipping from the requirements for larger vessels stem from concessions introduced in 1936 to assist the development of indigenous shipping. To qualify for these concessions vessels had to be less than 175 gross tons and under the command of a non-European master, who was only required to have a Local Ticket (Dick, 1980: 360). *Lokal* ships are not supposed to undertake voyages of more than 200 nautical miles port to port, and distance between port of origin and final destination should not exceed 500 miles. Dispensations can be obtained, however. On some routes in Outer Indonesia these distances are doubled. The larger *Lokal* vessels have to comply with stricter safety requirements than smaller ones.

⁶ However, small motor vessels of less than 35 gross tons come under the *Pelayaran Rakyat* regulations.

bantu) – is restricted according to the size of the vessel (*Persyaratan keselamatan*, 2002: 6). In practice, however, these and numerous other requirements are widely disregarded.⁷

It is difficult to know the total number of perahu, as there is no central aggregation of figures. A Dutch survey completed in 1981 estimated the number of perahu then at around 2600, a figure criticized by Hughes (1986: 109), who regarded the total number to be around 10,000.⁸ But regardless, the number of perahu has been declining steadily since the early 1980s, and especially since the mid-1990s. Based on the numbers of vessels in ports along the north coast of Java in 2002-3, there were probably not more than 1000 perahu (including pure motor vessels of less than 100 cubic metres, coming under the *Pelayaran Rakyat* regulations) working in the Java Sea timber trade at that time, with about a quarter of those being Madurese vessels.⁹

Hughes gives appropriately adjusted cargo figures which suggest that for inter-island shipping in 1981 perahu shipping carried 27 percent of dry cargo, compared to 34 percent for *Lokal* shipping and 39 percent for *Nusantara* shipping (Hughes, 1986: 111). This relative economic significance of perahu shipping has probably not changed greatly since then, as the decline in vessel numbers has been more or less offset by the increase in the size of the vessels. The larger vessels continue to play an important role in the outward movement of bulk commodities, such as cement and fertilizer, from Java, while in the inward timber trade perahu have maintained their virtually total monopoly.

Mariners' geography

⁷ In order to prevent operators of motor vessels (KM) from exploiting the concessions to motor-sailing vessels (KLM), it is prohibited to 'convert' the status of a vessel from KM to that of KLM by the addition of a token mast and sails. (Pers. comm., Drs Basuni Rachmat, head of the Division of Measurement and Legal Status of Vessels, Directorate General of Marine Communications, Surabaya, 15/11/2002.)

⁸ While the Dutch figure undoubtedly excluded many smaller vessels, especially in eastern Indonesia, it may have been a fair indication of the number of perahu involved at the time in the timber trade. Hughes mentions the large number of vessels registered in Buton (1986: 109), but the Butonese fleet has declined significantly since then. In 1979, when I visited the major perahu centres of Buton, including the Tukang Besi islands, it was already obvious that a significant decline had occurred in the local fleets; and in a subsequent visit to Buton in 1987 it was apparent that vessel ownership had declined very much further. These days Butonese vessels are irregular callers to Gresik, whereas that port had formerly been packed with them during the sailing season.

⁹ In the case of Madura there were far fewer vessels working in 2002-3 than there had been twenty years earlier, although the average vessel size had increased considerably over that time. Significantly, in 2002-3 there were also many vessels idle, in semi-derelict condition and unable to obtain carrying work. In my view local registration figures do not accurately reflect the number of vessels actually working, and certainly not the number working in the mainstream perahu economy, the timber trade. A more reliable indication is likely to be obtained from direct observation of all the

For visitors from modern industrialized countries who have no prior knowledge of the perahu fleet, the first sight of large numbers of these vessels in port is usually surprising. This is not just because of the technological contrast between perahu and modern shipping, as technological dualism is common in developing countries. Such surprise is also a product of Eurocentric education, in the broad sense of the term. In a nautical context this sort of western preconception and bias tends to produce a vague notion that traditional water transport technology in Indonesia was limited to outrigger canoes, with no capability for the building and operation of large and well constructed sea-going cargo vessels, some of which could take their place alongside small European ships of an earlier era. Yet the existence of a specialist indigenous maritime transport network should come as no surprise if one considers the geography of the region.

Maritime cultures, like other specialized cultures, have evolved in response to economic needs in combination with geographic circumstance. In this archipelagic region there was a largely structurally articulated trade demand coupled with very favourable natural conditions. The waters of the Indonesian archipelago are extensive, comparable in area to the Mediterranean, and the winds are often fresh with rough seas. But unlike many other tropical areas, including the neighbouring Philippines, Indonesia is virtually free from typhoons. The weather is not always suitable for sailing, but the monsoonal wind pattern, alternating between the southeast and northwest seasonal winds, is reliable and conducive to trade. The favourable season for sailing is the southeast monsoon, the dry season, from around late April to early November; but the northwest monsoon was also formerly routinely used by sailing vessels for eastward passages, especially in its early and late stages (November-December, and March). Heavy seas often occur during January and February, and most small perahu avoid going to sea at this time of year.

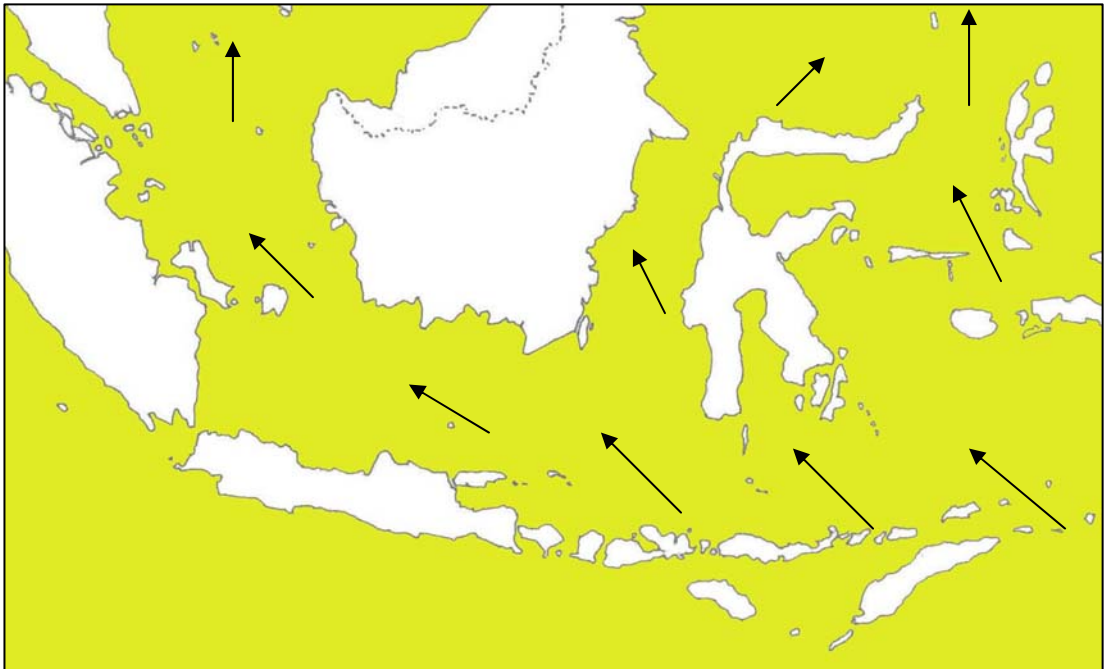
Notwithstanding the historiographic importance placed upon the spice trade from the Moluccas to Malacca and beyond, within the archipelago the Java Sea forms a discrete zone for navigation, trade, and cultural exchange (Houben, 1992). This sea is in itself a large expanse of water, much broader than, for example the Aegean (another highly conducive environment for the evolution of maritime culture), and many vessels have foundered there in bad weather. But wave conditions are typically moderate, and the major land masses enclosing this broad basin are hard to miss. Within the Java Sea, traditional perahu – that is, vessels owing little or nothing in the design of either hull or rig to outside influences – were able, with patience and skill, to reach almost any place desired during the southeast monsoon. This was different from the situation in eastern Indonesia, where the

major perahu centres – especially during the height of the northwest monsoon, when most Madurese perahu are laid up – coupled with observations and data from key ports along the north coast of Java.

Northwest monsoon, January



Southeast monsoon, July



Map 2: The monsoonal wind pattern in the Indonesian archipelago. (Source: *Indonesia Pilot*, Vol. II, 1976: diagrams 8,10.)

influence of the seasonal winds was more absolute. The movements of vessels in the Java Sea were less dictated by the southeast monsoon for two reasons.

The first of these is that with an average depth of around 50 metres, the waters of the Java Sea are not too deep for anchoring. On certain routes anchoring well out in the Java Sea was until very recently routinely resorted to by engineless perahu, if the wind was light or absent and the current inconvenient; and contrary to modern belief, the traditional wooden anchors served well for this task.¹⁰

The second factor facilitating navigation in the Java Sea is the long island of Java itself, which lies across the flow of the southeast wind during the main sailing season. Along the north coast of Java this prevailing wind is typically disrupted for a distance of up to fifty kilometres out to sea by a diurnal thermal effect, as the heated air over the land rises and an opposing breeze sets in from the sea in the afternoon. This 'sea-breeze' enables sailing vessels to close with the land or, in conjunction with anchoring in contrary conditions, to work their way eastward along the coast. With the cool of the night, the breeze comes off the land again. Traditional perahu could sail to windward in sheltered and semi-sheltered waters, but to make an easterly passage against the full force of the southeast monsoon in the open sea would have been difficult. By taking advantage of the diurnal sea-breeze along the north coast of Java and Madura, however, it was possible to escape the 'iron law' (Knaap, 1996: 55) of the monsoonal wind.

In terms of maritime traffic, the north coast of Java – *pasisir* Java, a term for these purposes taking in Madura as well – was historically the most important coastline in the archipelago. Many of the inhabitants of Java of course lived well inland, along river systems, areas with exceptional natural advantages for agriculture. But that did not mean there was no need for water transport. Land transport of bulk goods was always difficult prior to the development of modern roads and transport facilities, and the few long land routes available in the eighteenth century were poorly established and in the wet season

¹⁰ The traditional anchor was quite different from both Chinese and European anchor types. It was made from very dense wood so that it would sink, and consisted of a long shank with a large fluke-piece, fitted to the shank at an angle of about 45 degrees and reinforced with rattan or wire. A rock or other such weight was often added to the other end of the shank. This type of anchor was until recently widely used in Madura, including on large transport perahu. It holds well in mud, including in deep water. In 1986 I sailed from Java to Beliton on a large Madurese perahu which carried two anchors, one traditional and the other a steel one based on the classic European model. Anchoring was frequently resorted to when waiting for a suitable breeze, and the wooden anchor was the preferred one for deep water work (Photo 5). While a return to this pre-modern anchoring technology is neither likely nor recommended, it is clear that Meilink-Roelofs' dismissal of the Bandanese, who in the sixteenth century were voyaging to Malacca, as poor seamen on the ground that "their ships only had wooden anchors" (1962: 96) is Eurocentric. The fact that these ships had wooden anchors was moreover unremarkable historically, since such anchors were at that time standard on indigenous vessels, including the largest type, the *jong* (see Schrieke, 1966: 23), and were still standard two centuries later (de Bruyn Kops, 1854: 23).

often impassable for wheeled vehicles (Schrieke, 1957: 111-112). As a result of the poor land connections, water transport was correspondingly very important. The rivers in those days were far more navigable than now, as they had not then accumulated large silt deposits as a consequence of deforestation; and the main rivers, especially the Solo, which extended all the way from Gresik to the capital of Surakarta, served as transport arteries between the coast and the interior (Dick and Rimmer, 2003: 119). But for transport and trade along the north coast the sea served as the highway, just as it did for inter-island commerce.



Photo 5: Hauling up the wooden anchor on a large engineless Madurese perahu, from a depth of about 50 metres. The fluke is completely covered with dense mud – proof of the efficiency of this indigenous design of anchor.

Shipping and trade prior to the arrival of the VOC

Despite the conduciveness of the Java Sea as an area for maritime trade, the Javanese themselves are regarded almost universally these days as an agrarian people with very limited maritime capability. This highly-pervasive notion is amply reinforced by the fact that perahu shipping is dominated by ethnic groups from Sulawesi, with no Javanese representation at all. This ethnic pattern of maritime involvement is moreover perceived by both the Javanese and outsiders as a natural development, since the coastal people of South Sulawesi, and especially the Bugis, are widely regarded as having a strong affinity for seafaring and adventure, in contrast to the reputation of the Javanese (together with their near neighbours, the Balinese) as the outstanding land-oriented people of the archipelago. But it was not always so.

On the contrary, the Javanese of the north coast were once a major seafaring people. Javanese ships were sailing to China as early as the fifth century AD (Wolters, 1967: 151-2), and claims have also been made about early Javanese trade to India and beyond, although these are less clear and possibly exaggerated (Schrieke, 1966: 19). What is beyond doubt, however, is that at the time of first European contact, maritime trade within the archipelago was dominated by the Javanese. The Portuguese found an extensive Javanese trade network extending from 'Farther India' to the Moluccas, and they formed a high opinion of both the navigational skill of Javanese mariners and the capability of Javanese shipwrights (Schrieke, 1966: 18-19; Meilink-Roelofz, 1962: 103-105).

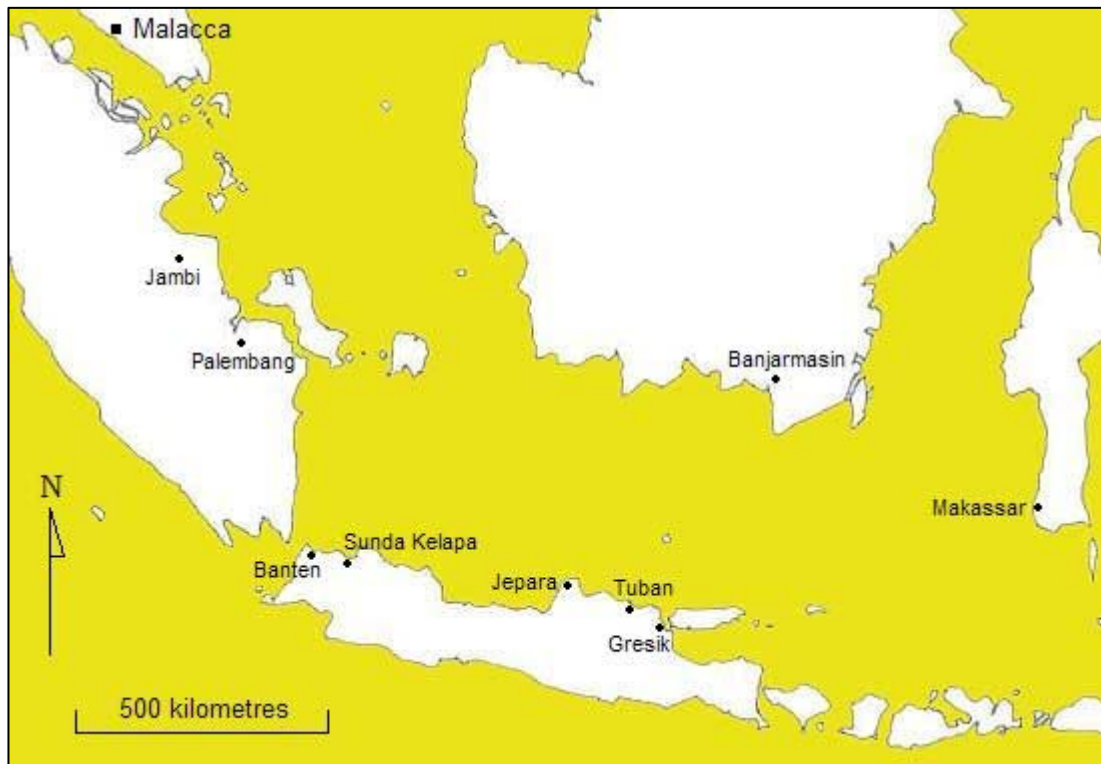
The present Jakarta perahu harbour of Sunda Kelapa was at that time a busy port, the principal one for the kingdom of Sunda in the western portion of the island (Cortesao, 1967: 172); but as busy as it was, it was probably less important than the main Javanese coastal centres of Jepara, Gresik, and Tuban.¹¹ According to early Dutch accounts, the Jepara fleet consisted of large 'junks' (*jong*) of two hundred tons and more,¹² while in the ports of Gresik, Jaratan (close to Gresik), and Sedayu (between Gresik and Tuban),¹³ there were said to be based one thousand or more vessels, ranging in size from twenty to two

¹¹ 'Javanese' here means the territory occupied by Javanese-speaking people, as opposed to the Sundanese part of the island.

¹² Early observers tended to refer to both large Southeast Asian vessels and large Chinese ones as 'junks', while smaller native craft were referred to by a variety of other names, both European and indigenous. Claims have been made that the term 'junk' comes from the Chinese word for ship, rendered 'chuan' in English, but there is no question that it derives from the Javanese-Malay *jong*. (See Mills, 1930: 160; Schrieke, 1966: 22, also 247, note 103; Manguin, 1980: 266, especially note 2; and Reid, 1992: 180.)

¹³ The present town of Sedayu is situated well up the Solo river, and seemingly too far from the sea to have been an important port for sea-going traffic. However, prior to the diverting of the Solo from its former outlet at Gresik, in the mid-nineteenth century, Sedayu was readily accessible to trading vessels.

hundred tons. In the case of these eastern Javanese ports, however, it can be safely assumed that most of these vessels would have been at the lower end of this scale – and as such not ‘junks’ (Schrieke, 1966: 19-21; Meilink-Roelofs, 1962: 270, 272).



Map 3: Key centres of maritime trade around the Java Sea basin prior to European intervention.

Turning to the nature of the maritime commerce engaged in by these small ships, the very numbers of them is incongruous with van Leur’s view of trade as ‘a thin golden line following the coast’. Indeed, rather than a low volume trade in exotica and luxuries conducted by ‘peddlers’ for the benefit of the elite, as van Leur imagined, maritime trade was mainly concerned with bulk goods, and was closely tied to the rural economy of Java (Nagtegaal, 1996: 107).

Of all trade goods around the archipelago and in the Java Sea in particular, by far the most important was rice. The trade in this staple was largely structural, since large parts of Java, with fertile soil and ample water coupled with irrigation technology, had very large rice surpluses, while many other places around the archipelago were largely or wholly dependent on imported rice. The major port for the export of rice was Jepara, which had good connections with an agriculturally rich hinterland, and its ships supplied the city of Malacca, as well as the major centres on the east coast of Sumatra, Jambi and Palembang; while at the other end of the archipelago, the Moluccas were also dependent on Javanese rice

(Schrieke, 1966: 266, note 558). Not all of Java was rich agriculturally, however, and there was also a good deal of trading in rice among coastal centres. A notable example in this respect was Madura, which purchased large amounts of rice from Central Java to meet shortfalls in production.

Another major trade good was salt, and as with rice, the trade in this commodity was largely structural and centred on the Javanese *pasisir*. Salt was produced by evaporation from seawater mainly along the north coast of Java and also in Madura, and exported to other places around the archipelago, although the most important market for salt was to inland Java via the Brantas and Solo rivers.



Map 4: The northeast coast of Java, the crucial area of the region's maritime trade.

This export trade in rice and salt from the north coast of Java was supplemented by other foodstuffs, such as dried fish, onions, garlic, beans, sugar, and coconut oil. Other goods were exported, but foodstuffs formed the trade staple, and the cargo of rice, salt, onions, and garlic carried by a vessel from Tuban intercepted by a Dutch ship off Malacca in 1607 (Meilink-Roelofz, 1962: 285) can be presumed to have been typical for the period. The regional supply and demand for these commodities intersected with the pepper trade from Sunda and Sumatra and the spice trade from the Moluccas, resulting in an archipelago-wide pattern of trade more or less centred on the northeast of Java, especially Gresik. Ships from ports along this coast would voyage westward to Sunda and Sumatra to trade their foodstuffs for pepper, which would subsequently be sold in Gresik for local consumption or for export; and eastward to the Moluccas to trade foodstuffs along with imported and locally made cloth for spices, which would in turn be either sold to foreign merchants in Gresik, or re-exported to Malacca along with the bulk foodstuffs and salt upon which that city depended (Schrieke, 1966: 21-22; Meilink-Roelofs, 1962: 83-84, 403 nn. 160, 161).

Such long-distance inter-island trade required considerable amounts of capital, and in keeping with Karl Polanyi's view of pre-modern commerce, most wealthy merchants and long-distance voyage backers came from the aristocratic classes, including the local rulers; while those who did the actual trading were typically Javanese vessel masters, operating on behalf of their backers and getting a share of the proceeds (Meilink-Roelofs, 1962: 273-275).

Such elite-financed maritime ventures took place from Madura as well as from Java. But there is no reason to assume that the Madurese at this stage occupied a prominent role in long-distance trade, certainly not by comparison with Tuban or Gresik. Rather, the main court and commercial centres of Madura at that time, Arosbaya in the west and Songgenep (Sumenep) in the east, would have been regarded as just two more port principalities among a larger number of trade centres spread along the north coast of Java.

Together with this long-distance trade there was also a great deal of short haul trade along the coast, which was typically of a more modest nature and did not require large financial backing. The goods carried were again products of the rural economy – rice, vegetables, fruit, dried fish, coconut oil, salt, timber, kapok, cotton, mats, handicrafts, and locally made cloth – and the traders were in the main local middlemen, who would buy up small agricultural surpluses from different households to sell at a busy marketplace; or the reverse process, buying from a major market serving a rich agricultural area to sell in small quantities in the trader's home area. The Madurese were much involved in this smaller-scale local trade, with the waters of the Madura Strait providing a convenient highway for small craft. Typical routes for this sort of local commerce would have been between Arosbaya and Gresik, between Sumenep and the north coast of Bali, and between the south coast of Madura and the eastern hook of Java. Indeed, these routes continue to be plied by small Madurese craft carrying petty traders until the present. Although the size of the vessels, the value of the cargoes, and the profits made from this short haul trade must typically have been small, there were so many traders and vessels involved in it in earlier times, along virtually the entire north coast, that collectively it was very significant. This was the trade which concerned the rural people, and it enabled large numbers of them to improve their quality of life beyond a subsistence level (Nagtegaal, 1996: 107-110).

The general impression which emerges from this overview of early modern trade and shipping in the archipelago is that it was based upon highly developed networks with a remarkable degree of inter-dependence between different areas (Reid, 1980: 442), and strongly connected to the rural economy of Java and Madura. This was the maritime trade

situation which the Dutch East Indies Company, the VOC, encountered in the early seventeenth century.

Indigenous shipping after European intervention

From the outset, the overriding concern of the VOC was to procure commodities in Southeast Asia which could be sold for high profits in Europe. The decision to establish the regional headquarters in Batavia was not because of the economic importance of Java to the Company, since the commodities most sought after, fine spices and pepper, came from elsewhere.¹⁴ Rather, the site was chosen because of the strategic value of the port's location, more or less central as it was to the major shipping routes. Subsequently, the western portion of Java did become important economically to the VOC with the establishment there of cane sugar, and later, coffee plantations. But the greater part of Java, and its northeast coast, remained of little interest to the VOC until it became embroiled in the struggle between the inland kingdom of Mataram and the uprising led by the Madurese prince Trunajaya in 1676. The outcome of this imbroglio was that the VOC, after siding with Mataram, found itself with extensive concessions from Mataram, including the right to build garrisons and trading posts. Through these trading posts it was envisaged that the Company would be able to sell imported Indian textiles and opium, to help finance its greater ventures in the spice trade. But despite these purely commercial motives, with this move into *pasisir* Java the Dutch became increasingly drawn into Javanese political affairs as various parties sought their assistance in a series of conflicts. In the 1740s, after barely managing to quell a major rebellion with millenarian undertones, the Company finally lost hope of a peaceful Java under the leadership of Mataram and took formal power over the entire north coast (Ricklefs, 1981: 90-93; Nagtegaal, 1996: 18-29, 209-227).

Although territorial expansion into an area offering meagre trading profits was not in keeping with the Company's trading objectives, the north coast had already become important to the VOC for its supply of rice, and timber for shipbuilding and general construction. By the middle of the eighteenth century the central and eastern parts of Java were regarded as Batavia's 'granary' and 'timberyard', with the regents of the districts required to supply a quota of rice, timber, or other product to the VOC, to be purchased at a fixed low price (Knaap, 1996: 13). Timber was imported to Batavia in large quantities, and became under VOC rule the single largest volume export commodity of the north coast, and in terms of value, the second most important cargo good after rice (Nagtegaal, 1996: 193).

¹⁴ Although Banten was an important place for the purchase of pepper, most of the pepper traded there came from its dependencies in Lampung, southern Sumatra (Knaap, 1996: 10).

The growth of the city and port of Batavia provided an economic boost to local trade, but the benefits of this for the private (non-VOC) sector were much reduced because of the direct involvement in regional trade of the VOC itself. As large Company ships, originally intended for global trade, were increasingly used to ensure the vital supply of rice to Batavia, private traders, both non-VOC Dutch and Asians, were marginalized (Nagtegaal, 1996: 127). Apart from the heavy involvement of the VOC in the rice trade, the Company of course completely controlled the spice trade, in which it claimed a monopoly, and it also endeavoured to restrict trade in other key areas in which it had an active interest, notably the selling of Indian textiles, and opium. To help enforce these policies the Company introduced a maritime pass system, requiring all non-VOC vessels to obtain a pass for every voyage. The impact of this upon regional trade became more deleterious after the pass system began to be used not just for monopoly enforcement, but also for the protection of Batavia as the primary emporium of the region. Thus foreign junks could not call at any port except Batavia, and Javanese vessels could only, in principle, sail to destinations in Java, and not directly 'overseas', a policy which led to the decline of Banten's trading relations with Aceh and West Sumatra. On top of these already considerable restrictions on shipping and trade, various charges were levied on vessel masters, not only for the passes and the services of officials involved in this, but also import and export duties, and anchorage and tonnage dues (Knaap, 1996: 15-17, 135-139).

Despite this major impact on 'private' trade, much of the pre-existing trade pattern survived. The VOC had no interest in attempting to extinguish private commerce outside its own monopoly and special interest areas, and Knaap (1996: 173) suggests that for the 1770s the proportion of total trade still conducted by the private sector may have been as high as 60 percent.

Nevertheless, indigenous shipping had clearly suffered a significant decline in the eighteenth century; and from 1795 on this trend worsened, as European-rigged ships, operated by both Europeans and 'foreign' Asians, came into direct competition with perahu. This was the beginning of a pattern of dualism in shipping in the archipelago (Dick, 1980: 352), with the European-rigged vessels involved in tramp shipping through agents, and if required, tacking against the monsoon; while perahu remained largely engaged in the traditional monsoonal trading pattern, with the skippers also the traders, and vessels typically waiting over until the season had changed before taking advantage of favourable winds for the return passage. In 1825 the total share of maritime trade held by perahu was a third, in 1860 a tenth, and in the latter part of the century, a twentieth (a Campo: 1993: 36-37). Up until 1850, European sail shipping was increasingly dominant; after 1865 sail

declined rapidly as steam gained the ascendancy.¹⁵ The dominance of steam became almost absolute after the formation in 1890 of the KPM, which eventually acquired a virtual monopoly of major steamship routes. With the scale of the KPM's organization, its technological advantage, and its operational approach, the gulf between the indigenous and modern shipping sectors widened further.

Despite the low relative position of perahu shipping by this stage, in absolute terms the picture was somewhat better. For Java, after a sharp drop in mid-century the tonnage carried by perahu had more than recovered by 1870, while for Indonesia as a whole perahu shipping showed a significant increase in tonnage toward the end of the century (Mansvelt, 1938: 91; a Campo, 1993: 38-39; Dick, 1980: 352-353). Some perahu operators had adapted to the new situation by taking up complementary roles to European shipping. Lighter shipping, between ship and shore, became a significant line of work for perahu based close to major ports, while many perahu took up feeder roles to steam shipping, which could not call at every small port. There were however some perahu operators, especially in outlying areas, who remained in competition with steam shipping.

In the 1920s the KPM, after having already marginalized European-rigged sailing ships, became increasingly concerned about this competition from perahu. Perahu operators had apparently benefited from a shortage of steam shipping and the tight economic situation during the latter period of World War I, and perahu shipping had subsequently grown strongly between Banjarmasin and East Java, and around the coast of South Sulawesi. In the case of South Sulawesi the KPM did not even have a coastal service, so there was no competition to its interests; but the management of the Dutch flagship line apparently regarded any 'wild' perahu shipping as a nuisance which should be eliminated, or at least contained. Hence, the KPM set up a service around the coast of South Sulawesi and, as with the Banjarmasin-East Java route, slashed operating costs and set up routes of dubious profitability in order to undermine the perahu fleet (Dick, 1987: 105-107). These aggressive measures on the part of the KPM were at first successful, and perahu shipping declined just at a time – in the post-War recession – when it might have been expected to continue to expand. This was a critical period for perahu shipping, when its very survival appeared to be hanging in the balance. But four factors ensured its survival.

¹⁵ The picture for sail shipping is unfortunately complicated by the absence of any clear guidelines as to what constituted an indigenous vessel. For statistical purposes, vessels were classed as either steam or sail powered, with the latter category sub-divided into 'European-rigged' and 'native-rigged' vessels. Perahu types with elements of western influence, especially in their rigs, were apparently routinely recorded in the 'European' category, although some harbourmasters may have used their discretion on this matter. Since the vessels falling into this grey area included some of the most significant perahu types, such as the *toop* and *palari* (Mansvelt, 1938: 90; a Campo, 1993: 36), the official figures should not be relied upon unreservedly. Nevertheless, the broad trends of

First, with the steep fall in commodity prices during the Great Depression, many businesses in the region economized by turning to perahu for their transport needs. Second, there was concern in government circles over the KPM's predatory policies and the decline of the perahu industry, and a sense that this significant line of indigenous enterprise should be given some assistance. Third, the perahu fleet became an icon for the nationalist movement, and under the auspices of the Partai Bangsa Indonesia a cooperative of perahu masters, Roepelin (*Rukun Pelayaran Indonesia*), was formed to assist perahu operators and to lobby the government for formal recognition of perahu shipping.¹⁶ Fourth, it appears that the KPM's policy of opening up new routes around South Sulawesi, intended to undermine perahu shipping, actually created something of a local economic boom which in turn provided a niche for perahu operators (Dick, 1975a: 77-79; 1987).

Although perahu became increasingly important for inter-island shipping during the Japanese occupation, their numbers declined significantly toward the end of World War II (Dick, 1975a: 79-80). But perahu shipping recovered strongly after Independence, and especially after the expulsion of the KPM in December 1957, which seriously reduced the capability of the modern shipping sector. Unlike modern ships, perahu were built and maintained largely independently of imported materials and components, they needed no special port facilities or infrastructure, and they were unregulated and free from the tedious bureaucratic procedures and requirements handicapping the modern sector.

This advantage of self-sufficiency began to be significantly eroded in the late 1960s, however, as the economy strengthened and engines and associated equipment became more affordable. Again, looking back from the present, the early years of the New Order regime can be seen as another critical point for perahu shipping, when it could well have been expected to die out rapidly like all the other commercial sailing fleets of the modern world. What saved this 'traditional' Indonesian fleet was a set of purely Indonesian circumstances and imperatives: the huge increase in demand for timber from the Outer Islands for domestic consumption in Java. The maritime Madurese would play a major role in this burgeoning trade.

Ethnicity and indigenous shipping in the early modern period

One reason for taking the above historical review of indigenous shipping as far back as the sixteenth century is in order to show that the modern pattern of domination of this sector by groups from South Sulawesi has not always prevailed. On the contrary, as has been shown,

indigenous shipping losing ground against European shipping, and European sailing shipping being rapidly marginalized by steam after 1870, are clear.

¹⁶ Although it surfaced in Makassar after World War II, Roepelin later became defunct (Dick, 1975a:

the Javanese, so conspicuously absent from the modern transport perahu scene, formerly dominated maritime trade across the archipelago. But this fact by itself tells virtually nothing about the relative involvement in maritime trade of the Javanese and other ethnic groups.

One early indication of the relative share of trade comes from the Batavia *Daghregister* for 1675, by which time Batavia was firmly established as the most important destination for indigenous vessels. The extent of Javanese dominance in this trade is clear from the breakdown of ship arrivals for that year. Of the 1,787 arrivals in Batavia, 1,620 vessels came from other ports in Java, compared to 52 from Sumatran ports, 15 from Madura, 13 from Borneo, 12 from Bali, and 7 from Sulawesi (Rantoado, 1988: 81). These figures also highlight the relatively modest involvement of both the Madurese and groups from Sulawesi in this trade at that time.

Much more comprehensive information on ethnic composition in indigenous shipping comes from a century later, through Knaap's study of shipping and trade along the north coast of Java in the 1770s. Although by this time Javanese domination of maritime trade must already have been considerably reduced, the Javanese were still by far the best represented ethnic group in the private sector outside Batavia, with nearly 40 percent of all skippers (Knaap, 1996: 209). A comfortable second were the Chinese, comprising around 30 percent of all skippers – another surprising figure, from a modern perspective.¹⁷ Most of the gains by the Chinese after the 1680s would have been at the expense of the Javanese. The Chinese nevertheless relied to a large extent on Javanese to make up their crews, and it is probable that around 85 percent of all crew in the private shipping sector outside Batavia were Javanese (Knaap, 1996: 69).

Malays came in a distant third in Knaap's study, at 9 percent of the total number of skippers; while skippers from Sulawesi comprised a much smaller proportion of at 3.7 percent, with nearly all of that recorded in the ports of Banten and Semarang. Madurese figured even less, at 1.3 percent, compared with 2.1 per cent for Balinese. However, the actual percentage of Madurese skippers would have been significantly higher than this, since

80-81).

¹⁷ These Chinese were for the most part descendants from Fukienese who arrived in large numbers along the north coast around the same time as the VOC. These newcomers were economic migrants, fleeing civil strife in China (Nagtegaal, 1996: 95). They came from a strong mercantile tradition, however, and despite their limited individual means and their disadvantage as outsiders they quickly established themselves through their own networks as a major force in trade. Unlike *peranakan* Chinese, they integrated little with the Javanese, and lived in their own *totok* communities. Some individuals became wealthy and powerful. The VOC, which had been experiencing difficulty in breaking into the textile and opium market along the north coast of Java, as well as in purchasing rice, soon came to rely on these newcomer Chinese traders as retail merchants. The relationship was mutually beneficial, because the VOC in turn provided protection and privilege for Chinese entrepreneurs (Nagtegaal, 1996: 95, 119-120), an arrangement which was to last until the end of the colonial era. It is thus not surprising that for the 1770s Chinese skippers were particularly prominent in trade to Batavia (Knaap, 1996: 64-65).

the term Madurese applied at that time only to the inhabitants of West Madura.¹⁸ Further support for strong Madurese involvement comes from the large number of skippers who listed Sumenep as their place of residence. Indeed, Sumenep was more frequently recorded as a place of residence than were the major centres of Surabaya or Semarang. The most common places of residence for skippers were however Rembang, the Javanese shipping ‘capital’, and nearby Juwana (Knaap, 1996: 210-211). The Rembang area was relatively poorly endowed agriculturally, which would have given some incentive for seafaring; but more importantly, this was a famous area for the building of small ships with access to large stands of excellent timber.

The decline of Javanese archipelago-wide trade dominance

Although the Javanese were still dominant in non-VOC shipping in central Indonesia during the 1770s, they were no longer dominant across the archipelago. The decline had started in the early seventeenth century, with Sultan Agung’s subjugation of the north coast principalities. The catalyst for this campaign was the rise of Surabaya during the second half of the sixteenth century, a turn of events connected to the booming spice trade with Gresik as its hub (Schrieke, 1966: 81). As Surabaya’s power grew it encouraged other centres to come into alliance with it against Mataram, which had started on its phase of regional expansion. Before long Mataram declared war on the eastern coastal states, but this campaign met with little success until the accession of Agung in 1613. As Susuhunan he brought a new determination to dominate the coast, and one by one, each of the major *pasisir* centres succumbed to his armies, until Surabaya finally fell after having been starved into submission in 1625. Surabaya and Gresik, in particular, were largely destroyed.

The ruthless and destructive nature of this campaign caused large numbers of people in the coastal centres to flee to other parts of the archipelago. Just as the fall of Malacca to

¹⁸ Knaap’s figures for Sumenep show only 0.4 percent of all skippers noted in that port as being Madurese. This figure can hardly have reflected the reality, and Knaap (1993: 209) reasonably suggests that many East Madurese would have been classed, at least in East Java, as Javanese. But the dominant ethnicity among skippers in Sumenep was not Javanese (20.2 percent), but Chinese (37.9 percent). More importantly, the ‘unlisted’ ethnic category for skippers in Sumenep was very high (32.7 percent). This was by far the highest ‘unlisted’ level for any of the 14 ports in Knaap’s study; and it is probably significant that along with Sumenep, Banyuwangi, Pasuruan, Surabaya, and Gresik (all ports close to Madura) also recorded very high levels of ‘unlisted’ ethnicity by comparison with the other ports (see Knaap, 1996: 208-209). (For Bangkalan, in West Madura, Madurese skippers comprised 13.9 percent of the total, against 57.5 percent Javanese, 18.4 percent Chinese, and only 4 percent unlisted.) The conclusion which may be drawn from this is that harbourmasters may have often been uncertain as to what ethnicity to record for skippers from East Madura. To list them as Javanese would have been awkward because East Madura had been effectively under the rule of the VOC – and thus not part of Java – since the 1680s. The VOC applied the name Madura to the whole island, but the inhabitants of the eastern part would have regarded themselves as natives of Sumenep, or Pamekasan, rather than ‘Madura’. This minor administrative quandary was possibly overcome by not entering any ethnicity for the skippers concerned.

the Portuguese had resulted in an exodus of Muslim traders from that entrepot a century or so earlier, so too eastern Javanese merchants now took to their vessels and dispersed widely, among other places to Banten, Palembang, Makassar, Kotawaringin (in southwest Borneo), and most importantly, Banjarmasin. The northeast coast of Java was racked by mass deportations, disease, and famine, and its seaports languished as the Moluccan trade links went elsewhere. Instead of trade between the spice islands and the Malacca Straits being conducted via Gresik, a new route developed with Makassar as its pivotal point for traffic both eastward and westward (Schrieke, 1966: 72, 79).

Coming after the assertion of the VOC's monopoly of the Moluccan spice trade and the decimation of the eastern *pasisir*, this diversion of the major trade route was a devastating blow to Javanese maritime commerce. The only coastal centre to not fall into decay was Banten, which had been spared from Agung's marauding forces by virtue of the intervening location of his nemesis, Batavia (Ricklefs, 1981: 43). But for the rest of the north coast, from the standpoint of shipping and trade, worse was to come. After the fall of Malacca to the VOC in 1641, the control of the rice trade became a key element of Mataram's strategy against the Dutch. Rice became a state monopoly, allowed to be exported only through Jepara; and in order to force Company ships to call at Jepara, to Mataram's considerable advantage, Javanese were forbidden to trade overseas. In 1655 Sultan Agung's successor, Amangkurat I, ordered all ports closed entirely, with large vessels requisitioned to Jepara, and small ones destroyed, on royal command (Schrieke, 1966: 75; Ricklefs, 1981: 68). Such inward-looking policies naturally did nothing to maintain the maritime traditions and skills which had so long been associated with the coastal Javanese. Thus only 32 years after the sacking of Surabaya, Javanese maritime capability had declined so far that the regent of Jepara, in order that his men could fulfil their orders to ship goods merely along the coast to Jakarta, pleaded in a letter to the Dutch Governor-General for assistance in the form of one Dutch pilot for each perahu, for "the sea is large and the Javanese cannot sail it" (Schrieke, 1966: 78).

At least there were still vessels available then, in Jepara. Further east the situation was apparently worse, for despite the reopening of the ports in 1661, it was reported in the Batavia *Daghregister* of 1677 that the Javanese of the eastern *pasisir*, in addition to being in a state of "great ignorance" at sea, no longer possessed any vessels of their own at all (Schrieke, 1966: 79). Javanese shipping would recover to some degree from this nadir, as attested to by Knaap's study from the 1770s. But its archipelago-wide dominance had passed.

The rise of shipping and trade in South Sulawesi

Trade relations between Makassar and Malacca date back to at least the sixteenth century, for Tome Pires mentions it (Cortesao, 1967 [1944]: 223, 226); but it is not clear from his account who was doing this voyaging and trading. Pires presents the people of the Makassar coast as great mariners, pirates and thieves, but it is clear that he was referring to the semi-nomadic boat-dwelling Sama people, whom he called ‘Bujuus’, rather than the Bugis or Makassarese.¹⁹ Nevertheless he does describe other more respectable and apparently wealthy sea-going traders – presumably Makassarese or Bugis – trading in foodstuffs and especially rice, in the waters around Makassar (Cortesao, 1967 [1944]: 227). Perhaps such traders had then been sailing as far as Malacca;²⁰ but in any case, this maritime commerce in bulk agricultural produce was probably for them a relatively recent form of enterprise. The Bugis, at least, had long been roving around in boats, as attested to in the *I La Galigo* epic, but these maritime ventures had been mainly in the nature of diplomatic contact and status-conferring experience for young nobles. Trade had been important in the traditional economy, but it had been trade based on rare and high value items, and dependent on outsiders (Abidin, 1974: 163-164). Despite Meilink-Roelofs’ championing of the Bugis as maritime traders in Pires’ time,²¹ there seems little doubt that prior to the sixteenth century most local sea-borne trade around Sulawesi was in the hands of the Sama, while long-distance trade contacts were mostly through Javanese and Malay seafarers (Reid, 1983: 122-127).

This pattern began to change between the fourteenth and sixteenth centuries as small communities in South Sulawesi formed alliances and integrated into petty states. This process was accompanied by, and very likely facilitated through, the development of intensive agricultural techniques, including wet rice farming (Macknight, 1983). As large

¹⁹ According to Pires, ‘Bujuus’ was the word used for these boat people by the Javanese; but it also corresponds roughly to the Bugis term for the Sama, ‘Bajo’e’ (Ind: Bajau) (Amarell, 1999: 11). Unfortunately, Pires’ translator, Cortesao, possibly swayed by the reputation of the Bugis as seafarers, preferred to render ‘Bujuus’ as ‘Bugis’, with the original as a bracketed alternative.

²⁰ Although Pires noted Makassar as a place trading with Malacca, in a long list of the countries of origin of traders *visiting* Malacca he makes no mention of Makassar (Cortesao, 1967 [1944]: 268-269). Given the comprehensive nature of that list, it seems likely that traders from Sulawesi were at best minor players in trade at Malacca, and that most business between the two places was carried out by Malay traders.

²¹ Presumably relying on Cortesao’s unfortunate insertion of ‘Bugis’ (see note 19), Meilink-Roelofs (1962: 86) rejects Schrieke’s argument that the people of South Sulawesi in the early seventeenth century had been mainly concerned with land trade and agriculture. But Schrieke was concerned with broad trends, and was not excluding the possibility of any maritime commerce on the part of the indigenous inhabitants. The balance of evidence is clearly on his side, and his view of the primacy of agriculture during this incipient state-forming period in South Sulawesi has since been supported by Macknight (1983) and Pelras (1996: 111). On the point of Javanese as traders to this area, some early Dutch reports for South Sulawesi note Javanese placenames – including ‘Sorobaya’ and ‘Garassi’ [Gresik] – at strategic points on the coast. Another indicator comes from Bira, a famous shipbuilding locality on the southeast of the peninsula: according to local tradition, both oral and

agricultural surpluses were achieved, new opportunities arose for wealth and power, with maritime trade an essential element in this process of state formation. These developments were essentially the same as those which had occurred much earlier in Java, and which had contributed to the development of Javanese maritime capability.

In Pires' time the main trade centre on the west coast of the southwestern peninsula of Sulawesi was a place called Siang, situated near modern Pangkajene (Pelras, 1996: 104), and it was not until a few decades later that Makassar, some distance to the south, emerged as a significant trade centre. Malay traders had been regular callers at Siang, and following the fall of Malacca a community of them settled there. In the middle of the sixteenth century these Malay traders relocated to Makassar. They may have been motivated by the conversion to Christianity of the ruler of Siang, but apart from this factor Makassar offered a safe anchorage, and guarantees of security from the local ruler (Reid, 1983: 134, 139).

Following the decline of the northeast coast of Java in the early seventeenth century together with the Dutch clamp on the spice trade, Makassar was thus the obvious choice to become the new major entrepot for eastern Indonesia, and many Javanese merchants relocated to that port. Around the same time many Portuguese traders began to sail to the Moluccas via Makassar in order to avoid the Dutch; and after the fall of Portuguese Malacca to the VOC in 1641 a large Portuguese contingent settled in Makassar (Reid, 1983: 139). With the local availability of large rice surpluses, foreign traders purchased the rice which they needed for the Moluccan trade in Makassar, to the financial benefit of local elites. At first these Makassarese merchant elites were content just to supply the foreign traders, but before long some of them established agencies in the Moluccas, and increasing numbers of them began to invest in vessels of their own (Amarell, 1999: 17). If any further evidence is needed to refute Meilink-Roelofs' view of South Sulawesi as a significant force in maritime trade prior to this period, it is surely supplied by the fact that many of these maritime entrepreneurs from Makassar looked beyond their own shores for their ships. Some purchased vessels in Pasir, Borneo, but the place of choice was Java, with Makassarese travelling there to buy ships every year during the middle part of the seventeenth century (Schrieke, 1966: 67-68; Boomgaard, 1991: 19).²²

written, the original community was founded by a group of shipwrecked Javanese traders (Reid, 1983: 123).

²² The Makassarese did have their own vessels, of course, and Pires noted "their large well-built *pangajavas*" (Cortesao, 1967 [1944]: 223). According to Cortesao (1967 [1944]: 98), 'pangajava' is derived from the Malay word *penjajap*, which was a swift vessel of narrow build; but it also corresponds to *pajala*, used throughout South Sulawesi for the standard boat of that area (Nooteboom, 1940: 26; Horridge, 1978: 22; 1979b: 4, 24-26). The latter term denotes a substantial but semi-open vessel. The vessels purchased from Java or Pasir in the seventeenth century must have been better load carriers and more suited to long-distance work. It is very likely that many of the vessels bought in Java by Makassarese merchants were of the *pencalang* type. This was a design of Malay origin widely adopted in Java, and was known to be popular in Makassar in the eighteenth

As the emergent small kingdoms of South Sulawesi began to impinge upon one another, a bitter struggle broke out between the kingdom of Gowa, with its power base at Makassar, and the Bugis state of Bone, for control of the whole peninsula. At the same time, the VOC, wanting to curb the 'smuggling' trade of Makassar, became involved in an alliance with Bone. In 1669 the Company forces took Makassar, and so ended the free trade environment of that port city.

Following the defeat of Gowa, two significant emigrations occurred from South Sulawesi. First, some Makassarese elites were unwilling to tolerate Dutch rule or submit to the presence in their city of the victorious ruler of Bone, Arung Palakka; and with entourages of followers, including women and children, they took to their boats and made for other parts, including Java, Sumatra, and even Siam (Pelras, 1996: 145). They came to Java in sufficiently large numbers to play an important part in the uprising against Mataram, and they became much involved in robbery and piracy. The second major emigration occurred from the Bugis state of Wajo, which had sided with Gowa during the long struggle between the two major powers and refused to accept Bone's claims to suzerainty over the peninsula. After the Wajo capital was razed by Bone in 1670, a large proportion of the local population fled by boat. The Wajo were already particularly active in maritime trade, with their geographic situation being very favourable for this,²³ and it was the subsequent wide dispersal of this group in particular which contributed to the reputation of the Bugis as the principal seafarers and traders of the region (Lineton, 1975: 177-8).

Apart from outward movement because of local wars and rivalries, which continued over the next half-century or so, many Bugis also quit Makassar because of the restrictions on trade imposed by the Dutch. With opportunities in the Moluccas also restricted by the Dutch, most chose to base themselves in the western archipelago. The phenomenal success of the Bugis through the eighteenth and nineteenth centuries owed much to the high demand for certain sea products in China, with Bugis traders acting as intermediaries between the small, isolated communities which supplied these marine products, and the major entrepôts of the archipelago, especially Singapore (Lineton, 1975: 179).

Although the Makassarese eventually became somewhat overshadowed by the Bugis, their maritime activities were of a similar nature, as were those of the other group

century (Knaap and Sutherland, 2004: 65), and still in use among the Bugis as late as the early twentieth century (Nieuwenkamp, 1926: 149).

²³ The Wajo people were concentrated around the shores of Lake Tempe, an extensive inland body of water connected to the sea by the Tjenrana River. In this environment boats became very important as a means of transport, and the navigable waterway made maritime trade accessible to the bulk of the population (Lineton, 1975: 177). A remarkable parallel exists in this respect between the Wajo Bugis and the Iranun, the 'people from the lake' who originated from the region around Lake Lanao in Mindanao, and who became the most notorious pirates and slave raiders of Southeast Asia (Warren, 1981: 149-151; 2002: 26).

from South Sulawesi, the Mandar. All three groups had been initially advantaged by the rise of Makassar, and their many settlements in isolated parts of the coast of South Sulawesi and offshore islands provided continuing local opportunity for transport perahu operators in conjunction with long-distance work. The other group from Sulawesi, the Butonese, also had the advantage of favourable location, being on the route to the Moluccas and with a considerable economic dependence on perahu traffic, especially in the Tukang Besi islands. The Butonese also came to serve as trading intermediaries between isolated settlements and major ports, and they alone of the major maritime groups have maintained this niche until the present (Evers, 1983; Southon, 1995).

The demise of Javanese shipbuilding

Although Javanese shipping had been brought virtually to a standstill in the first half of the seventeenth century by Mataram's onslaught upon the northeast coast, the local shipbuilding industry remained relatively little affected. Small shipyards existed at places right along the north coast, but the most important area by far was between Tuban and Jepara, and especially at Rembang. This stretch of coast had been important for centuries as a centre of shipbuilding, because of the superiority of the timber available in these areas, and also because of the standard and versatility of workmanship, especially after the infusion of Chinese carpentry skills during the fifteenth century.²⁴ The northeast ports of Java were still moribund in the middle of the seventeenth century, but orders for vessels came from other places, especially Banten and Batavia; and as noted above, the Makassarese were eager purchasers as well.

As Mataram's hold on the north coast became increasingly untenable and the ports were reopened in 1661, Javanese shipping began to recover slowly, despite the restrictions imposed by the VOC. Meanwhile, together with the recovery of indigenous shipping there was a demand in Batavia for better quality locally built vessels, and in 1675 a Dutch shipwright together with a *peranakan* Chinese set up a yard in Rembang specializing in the building of ships to European design and construction. A few years later the VOC took over this yard. Although it built its own large vessels there, to save costs the Company continued to order smaller vessels from traditional builders, as in the case of a single order for fifty

²⁴ Chinese influence in shipbuilding may well have occurred earlier than this, since Chinese settlers were established in Tuban and Gresik in the early fifteenth century (Mills, 1970: 89-90). Direct references to shipbuilding are found in passages from the controversial Parlindungan-Poortman text. One of these tells that in 1477 the Chinese of Semarang who reverted from Islam to their previous religion were spared execution because the local leader "needed their technical expertise, especially in the maritime field"; while another relates that in 1513 the leader of the Semarang Chinese decided to copy the model of a "Ta Tjih" ('western', in this case possibly meaning western Southeast Asia) ship which was being repaired nearby, in order to improve the sailing performance of the Chinese ships "which were indeed large but very cumbersome" (de Graaf and Pigeaud, 1984: 30).

large perahu from the village head of Kaligawe, near Semarang, in 1679 (Nagtegaal, 1996: 134). But the customers of the traditional shipbuilding industry were in the main from the private sector. Despite the downturn in private trade after 1705, there was still plenty of traditional shipbuilding taking place throughout the eighteenth century. Along with the Javanese, Chinese entrepreneurs were very active in this industry. There was a considerable exchange of building ideas, and by the 1770s the shipyards of Rembang were capable of producing almost any sort of traditional small vessel (Knaap, 1996: 151), so that a few decades later Raffles found this coast “lined with Java-built vessels of every description”, many of which were destined for owners in other parts of the archipelago. The majority of these were fairly small at less than twenty tons capacity, although large vessels of up to 400 tons, of non-traditional design, were built in yards operated by the Chinese or the Dutch (Raffles, (1978 [1817], vol. I: 203, 205).

The traditional shipbuilding industry suffered a setback in the early nineteenth century with the declaration of forest areas as crown land and the setting of the price for teak timber beyond that which the industry could afford.²⁵ After 1826, however, the price of timber fell following the abolition of the Forest Board and the devolving of timber controls to the Residents. Rembang and Lasem became bustling places once more, so that Dutch visitors to the area around 1850 wrote of how impressed they were by the spectacle of the traditional shipyards (Boomgaard, 1991: 30). But it was a brief resurgence only. Teak prices rose again with the reinstatement of central forestry control, railways were reducing the need for sea transport along the north coast of Java, and steamships were providing efficient and competitive services around the archipelago. Meanwhile, the existing niches for indigenous shipping had been largely taken over by other maritime groups. By the end of the century both Javanese perahu shipping and the ship-building industry of the Rembang-Lasem coast had virtually disappeared, and the modern paradox and paradigm of the Javanese as land dwellers suited only to agriculture, in contrast to the intrepid seafarers of South Sulawesi, was well established.

The exception to this pattern was in Madura, where small shipbuilding, seafaring, and maritime trading patterns not only survived, but flourished (Rouffaer, 1904: 50). This is evident from the numbers of trading vessels: in 1903 there were a phenomenal 2923 trading vessels in Madura, a figure far higher than for any other residency of Java, while in the former indigenous shipping ‘capital’ of Rembang there were only 115 vessels. This involvement as maritime transport entrepreneurs was moreover widespread among the Madurese, since the number of vessel owners in the residency was nearly as high as the

²⁵ These measures were commenced by Daendels, who set up a Forest Board. During the period of British rule this central administration system was abolished and the price of timber greatly reduced, but with the return of the Dutch the earlier controls were reinstated (Boomgaard, 1988: 73-76).

number of vessels, at 2712 (*Overzicht... vervoerwezen*, 1907: 238). Indeed, by this time observers of the traditional maritime scene were regarding the Madurese as having a special affinity for seafaring, with comparisons often drawn with the Bugis (Kuntowijoyo, 1980: 76).

The success of the Madurese in this respect was certainly not because Madura, being an island, had been sheltered against competition from either modern shipping or railways. As with the case around the coast of South Sulawesi, the KPM aggressively targeted routes used by Madurese perahu, with a prolonged campaign of attrition on the Surabaya-Banjarmasin route, and even tried to capture the trade of Madurese perahu on the Sumenep-Banjarmasin route (Dick, 1987: 106-7). Furthermore, unlike the case in South Sulawesi, Madura had an efficient railway service running the length of the island, with regular motorized ferry connections from both Kamal, at the western end of the island to Surabaya, and from Sumenep, at the eastern end of the island, to Panarukan on the mainland of East Java (Kuntowijoyo, 1980: 76). The Dutch company operating the railway also owned a fleet of steamships and motorships (Kuntowijoyo, 1980: 294), which put even more economic pressure on Madurese perahu. Finally, on this point of structural economic disadvantage, the Madurese built their perahu from teak, and in this respect they were faced with the same restrictions and costs as were the builders on the Rembang coast; whereas the 'junglewood' timber used for the construction of perahu in South Sulawesi and neighbouring areas was of no interest to the government and was available for the taking at no cost other than the labour.

These factors make it all the more remarkable that the Madurese were able to secure a firm place as one of the major maritime *suku* of modern indigenous shipping, and for at least a century have been the only indigenous representatives from the entire north coast of Java remaining in this traditional transport sector. Yet as has been shown, while the Madurese were active in this sector during the early modern period, their role then was minor compared to that of the Javanese. Data from the seventeenth and eighteenth centuries suggest that maritime trade conducted by Madurese was only about the same level of importance as that conducted by the Balinese – who, like the Javanese, have also disappeared from the indigenous maritime scene. The factors which underlay the decline of Javanese indigenous shipping and the rise of the maritime groups of South Sulawesi have been set out in this chapter; but it is apparent that the enduring success of the Madurese as seafarers and traders is a special case running against the current of these broader events.

CHAPTER III

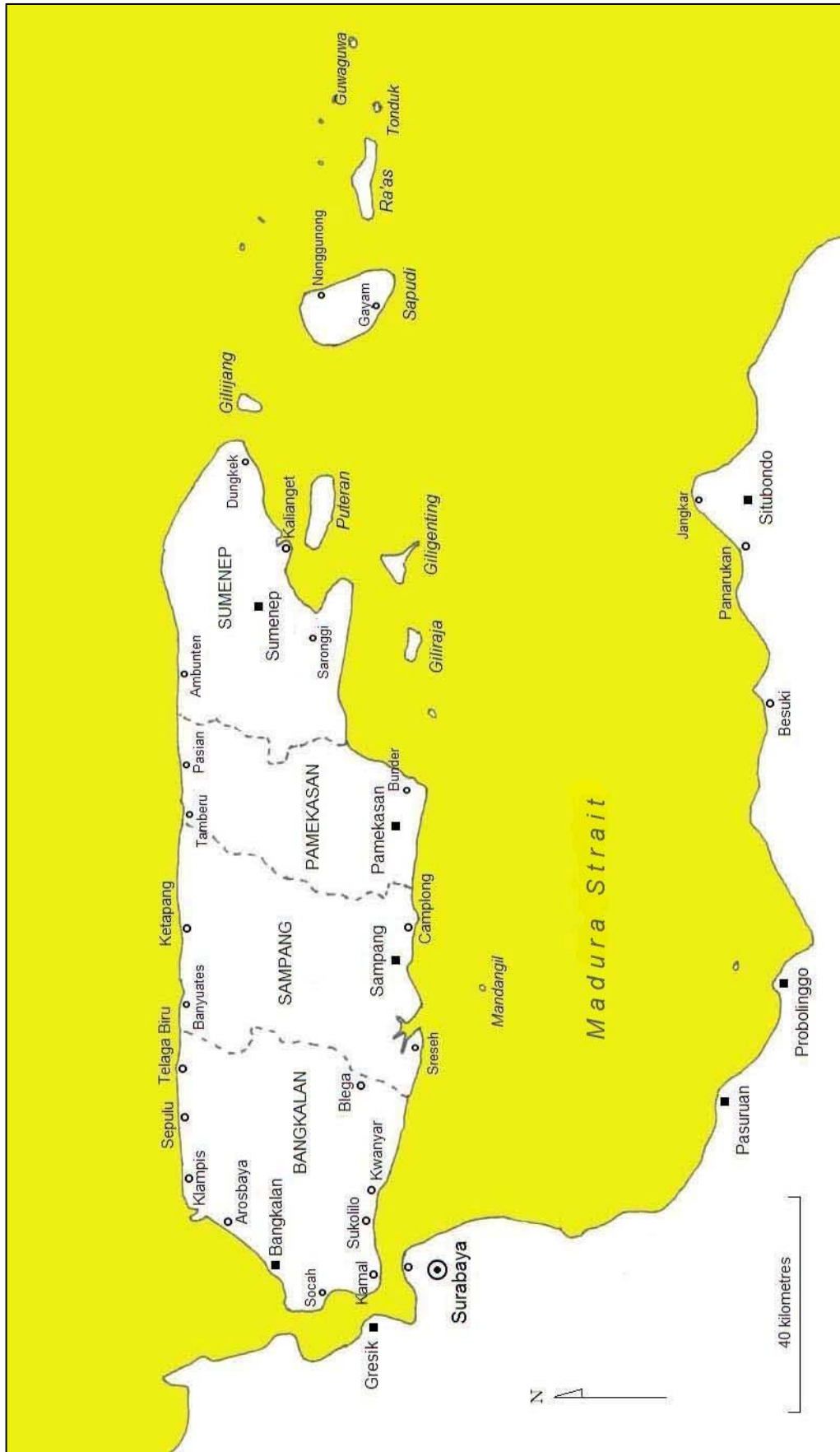
A trading and maritime people

A popular saying among the coastal Madurese to refer to their seafaring tradition is *abantal ombak asapo angin*, ‘for a pillow the waves, for a covering the wind’. But despite this strong cultural identification with a maritime way of life, and the wider association of the Madurese with seafaring, the Madurese are – like the Bugis (Pelras, 1996: 3) – primarily an agricultural people. Many are involved in fishing, which has traditionally been an important part of the economy.¹ But the numbers of Madurese involved in transport perahu work and its ancillary occupational areas have always been less than those involved in the fishing sector. Nor, in general, does perahu transport work at the present time bring major benefits to the economy of Madura, since the principal cargo, timber, comes from outside Madura and is mainly carried to ports in Java, with the freight or trade profits going to a relatively small number of entrepreneurs. This was not so much the case prior to the 1970s, when there were many more perahu than today, employing a larger number of people, and the goods carried were more often directly connected to the Madurese economy. Indeed, mere observation of Madurese perahu at the present time, whether in their home areas or in ports elsewhere, gives little indication of how the Madurese rose to prominence as a maritime people, and why they did not succumb to the economic pressures which led to the demise of indigenous shipping among the Javanese. The purpose of this chapter is provide an understanding of these issues through consideration of the physical and human geography of Madura, with particular attention to factors which have contributed to the character and structure of Madurese rural society, and the development of maritime capability.

Geography

The island of Madura is situated a short distance to the north of the eastern hook of Java, from which it is separated by the Madura Strait. It is a long narrow island, approximately 160 kilometres in length with a maximum width of about forty kilometres; and its physical orientation is east-west, more or less parallel to that of Java. For the greater part of its length, the Madura Strait is fifty to sixty-five kilometres wide, but at its western end it narrows down like a funnel, so that at the narrowest point only a few kilometres separate the two islands. At this point a very busy ferry service is operated between the small town of Kamal,

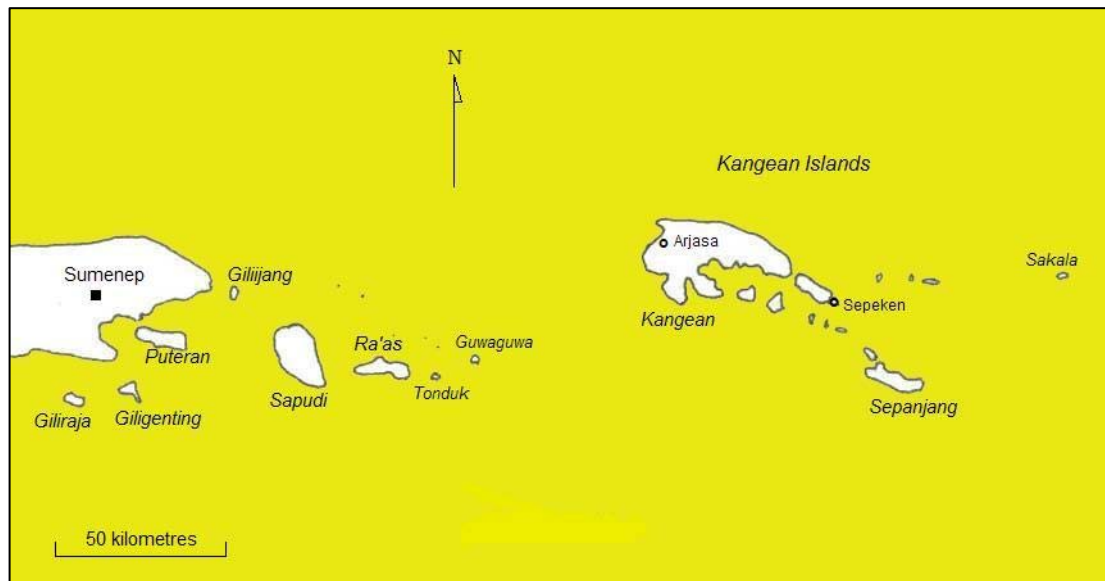
¹ The percentage of the workforce of Madura engaged in fishing has remained more or less constant throughout the twentieth century, at around 8 percent. (See Kuntowijoyo, 1980: 304; de Jonge, 1989: 41; Muthmainah, 1998: 19.)



on Madura, and Tanjung Perak, the port for the city of Surabaya. Tens of thousands of people do the crossing each day, along with hundreds of motor vehicles. As narrow as the strait is at this point, the crossing is not a quick process. The ferries are modern and numerous, but the terminal space at both ends of the service is limited, and the ferries frequently have to wait outside the port for an hour or so before they can berth. The number of motor vehicles using the service has increased greatly in recent years, and long loading queues are frequent. In order to cope with the traffic it is planned to build a bridge across the narrows, and earthworks for the approach roads for this 'Suramadu' project began in 2002. The bridge will run from a point east of Tanjung Perak to Sukolilo Barat on Madura.

Apart from its importance as a ferry point, the narrows of the strait are also important as a major shipping anchorage, the Surabaya roads, where the number of ships anchored often exceeds one hundred. Despite the efforts of the Dutch to make Batavia the great emporium and port of the archipelago, Surabaya has been the busiest port of the archipelago in modern times. This is because of its sheltered anchorage, with a good depth close to the shore. Jakarta was not naturally favoured in this respect, with ships having to anchor further out, and no shelter in the roads from the northwest monsoon. Prior to the rise of Surabaya in the eighteenth century, the major port of Java was Gresik, which is also situated in the narrows between Java and Madura. Pires called Gresik "the jewel of Java in trading ports... where the ships at anchor are safe from the winds, with their bowsprits touching the houses" (Cortesao, 1967 [1944]: 193). Although Gresik became a backwater after the destruction wrought by the army of Mataram in the early seventeenth century, it has remained an important port for smaller ships and perahu, and also has bulk cargo facilities. There is a steady traffic of very small informal ferry perahu operating between Socah, near the western end of Madura, and Gresik, often carrying petty traders; as late as the 1980s these very small ferries were traditional sailing craft, a sharp contrast with the large modern vehicular ferries operating between Kamal and Tanjung Perak. There is also a ferry service from Kalianget, at the eastern end of Madura, to Jangkar, a terminal not far from the town of Situbondo. This crossing takes several hours, and it is little patronized by comparison with the Kamal-Surabaya route.

Administratively, Madura is part of the province of East Java. The island is divided into four administrative districts or *kabupaten*, from west to east Bangkalan, Sampang, Pamekasan, and Sumenep. Sumenep is considerably larger than the other three districts, because its area takes in a substantial number of islands, including the Kangean group well to the east of Madura, and the Masalembu group well to the north in the Java Sea. Each district has a capital town of the same name as the district. These are the only substantial towns on Madura, but they are not large by comparison with towns on Java, and all have populations less than 100,000. None of these main centres is a true port town, and none



Map 6: Islands in the *kabupaten* of Sumenep, excluding the Masalembu islands to the north.

faces directly on to the coast. They are nevertheless all close to the coast, and they are all situated on the main road which runs through the southern part of Madura. Along the almost dead straight north coast, towns are in general smaller and more widely dispersed than in the southern part of the island. Apart from the ferry port of Kamal, the only significant port on Madura is Kalianget, near Sumenep.

In contrast to the spectacular landscapes of Java and Bali, characterized by volcanic peaks, terraced hillsides, and lush lowlands, Madura appears unremarkable. It is a low-lying island, with its highest point only 471 metres above sea level. But although the terrain is not high, relatively little of it is flat. An irregular formation of hills extends through the centre of the island, and much of the remaining countryside is undulating. Unlike the rich volcanic soils of Java and Bali, the soil of Madura consists mainly of limestone and marl (clay mixed with lime), and is poorly suited to agriculture. The smaller islands to the east are predominantly limestone. The only significant exceptions to this pattern are four small alluvial river plains, forming the hinterlands and agricultural bases of the four main towns. Considering this geological foundation, it is not surprising that these main towns, each the centre of a former principality, developed in their respective locations. Even so, the fertility of the soil in these alluvial areas is below that of most of Java and Bali.

There are no long river systems in Madura. Only two rivers, the Blega and the Sampang, both running to the central south coast, can be regarded as navigable at all, and then only for a few kilometres. Some irrigation for agriculture is carried out from these rivers as well as from rivers in the western and eastern parts of the island, but in general irrigation

systems on Madura are extremely limited by comparison with Java and Bali. Consequently, crops are mainly dependent on rainfall.

Yet in the matter of rainfall, too, Madura is disadvantaged by comparison with Java. Although the rainfall in the western part of the island is not much different from that of nearby Java, the central and eastern areas of Madura are markedly drier than Java, especially during the dry season, the southeast monsoon (Kuntowijoyo, 1980: 29). Combined with the generally poor fertility of the soil and the lack of resources for irrigation, the human significance of this pattern of low rainfall in Madura has been profound. The westernmost part of the island, particularly in the southern approaches to the town of Bangkalan, is moderately well irrigated, and the rural scene along the main road from Kamal to Bangkalan is not dissimilar from that of much of Java. But this verdant corner is deceptive. To appreciate the true physical nature of Madura, one needs to traverse the centre of the island, such as from Ketapang to Sampang, at the height of the dry season. In agricultural terms much of this is heartbreaking country: very uneven with numerous gullies and rocky outcrops, the soil reddish-brown to grey in colour and prone to erosion in both wet and dry seasons, little remaining natural vegetation, and only withered stalks in the fields at this time of year. Yet this same harsh countryside is dotted with small hamlets, with their inhabitants eking out a living from such crops as they can grow during the wet season.

Agriculture, population and ecology

Wetfield rice farming (*sawah*) is very much the exception on Madura. The main form of agriculture is instead dryfield (*tegal*), with by far the dominant crop being maize, which requires less moisture than rice, followed by cassava.² But whether for maize or rice, the yields per land unit are only about half of those achieved on Java, while the risk of crop failure is higher on Madura (Kuntowijoyo, 1980: 51-52, 97; de Jonge, 1989: 37).

The two major cash crops of the colonial period, coffee and sugar, were both tried and ended in failure (Kuntowijoyo, 1980: 55-59, 64). The only agricultural success story from Madura is that of tobacco, which was introduced in the late nineteenth century and soon became the island's most important cash crop. Tobacco is grown during the dry season, mainly in the eastern half of Madura, on either *tegal* or *sawah* land. The plants are watered by hand, and if this is not possible planting is carried out during the latter part of the wet season. But although Madurese tobacco is now in demand in the cigarette factories of Java, major expansion of tobacco farming on Madura dates only from the 1970s (de Jonge, 1989: 155-156). Traditionally, most land was left fallow during the dry season, as no significant

² There is some overlap of *sawah* and *tegal* agriculture in some areas, with rainfall-dependent *sawah* fields often used in the latter part of the wet season for dryfield maize farming.

crops could be grown then, and even today much of Madura's arable land is worked only in the wet season.

Despite the limited suitability of Madura for agriculture, the island has long been densely populated. Indeed, during the nineteenth and early twentieth centuries Madura was the most densely populated large island in the archipelago.³ It has only been since the 1940s that Java has been more densely populated than Madura. During that decade, marked by the Japanese occupation and political uncertainty, the population of Madura declined drastically, and it was not until 1971 that it recovered to its pre-war level.⁴ The population in 2000 was a little over three million,⁵ representing a moderate 29 percent increase since 1971.

This large population is predominantly rural, with only about ten percent of the total living in urban areas. The population is moreover highly dispersed. In the traditional pattern, the large clustered agricultural villages typical of Java existed in only a few places, most notably in the royal domains which included Madura's best agricultural land. Large villages also developed on the coast and at certain intersections along the main roads, but these were outside the traditional pattern.

Rather than the clustered village, the basic unit of settlement on Madura has been the hamlet (*kampung, dukuh, dusun*). Apart from their small size – often only a dozen or so households – a remarkable feature of these hamlets is that they traditionally consisted of a single extended family across three or more generations, with the houses set out in a particular order and surrounded by shrubbery or a bamboo fence. The first head of the compound was the founding husband, and upon his death, the husband of the eldest daughter, and so on. New houses were built for married daughters, with sons moving out upon marriage to stay with their in-laws.⁶ It was a very close knit social group, with much cooperation and interaction and sharing of facilities, but with each household more or less independent. It was a closed unit, but not a 'corporate' one.

³ The first serious population survey, conducted in 1815, indicated that Madura's population was denser than that of Java overall (including Madura), at 41 persons per square kilometre against 34; and by the end of the nineteenth century, Madura was almost twice as densely populated as Java, with 360 persons per square kilometre compared to 219. In all of East Java at that time, only the fertile residency of Madiun was more densely populated than Madura; but the density for the latter would have been higher still if the large and sparsely inhabited island of Kangean had not been included as part of Sumenep (Kuntowijoyo, 1980: 95; de Jonge, 1989: 21).

⁴ For the decade of the 1940s the population of Madura declined by about 20 percent, while that for Java for the same period rose by around two million (Husson, 1997: 88-89; de Jonge, 1989: 22; Touwen-Bouwma, 1995: 73).

⁵ Bangkalan 762,090; Sampang, 715,322; Pamekasan, 792,300; Sumenep, 966,189. (*Bangkalan dalam angka 2001; Sampang dalam angka 2000; Pamekasan dalam angka 2000; Sumenep dalam angka 2000.*)

⁶ When a young man's family succeeds in arranging a betrothal, the occasion is referred to as 'going through the fence' – a saying which reflects the closed nature of these tiny communities (Sudagung, 2001: 53).

The ‘family compound’ hamlet is now passing as the basic unit of settlement, largely because of lack of space, although traditional family compounds incorporated within larger settlements are still commonplace in coastal as well as inland areas. The hamlet pattern of population distribution nevertheless continues to prevail, and this has complicated local administration until the present. In Java the *desa*, or village administrative unit, the lowest tier of the national administration system, generally corresponds to the pattern of settlement in large clustered villages; but in Madura the *desa* is a largely arbitrary concept which does not reflect the actual demographic pattern. Consequently, the *desa* head, the senior local official (referred to in Madura as the *kliwon* or *klebun*) is generally weak by comparison with his counterparts in Java, with little influence outside his own hamlet (Touwen-Bouwsma, 1989: 150-155; Mansurnoor, 1990: 134-135).⁷

The high degree of population dispersion is related to the low productivity of the land. As population in previously settled areas increased in earlier times, families moved out to carve out a piece of the countryside for themselves. This occurred on a much greater scale during the nineteenth century, and in turn placed increased pressure on the ecology of the island. Madura was in the distant past largely covered in forest, but deforestation due to land clearing took place there more rapidly than anywhere else in the archipelago (Kuntowijoyo, 1980: 32). Because of the excessive clearing of forest, flooding has long been a problem during the rainy season, and much of the already thin topsoil has been lost to erosion. Moreover, unlike *sawah* agriculture, which can be carried out virtually continuously with relatively little depletion of the soil, *tegal* farming ideally requires that fields be allowed fallow years; but that is a luxury which since the nineteenth century has not been affordable to the people of Madura (Kuntowijoyo, 1980: 41). Dried livestock manure is burnt as fertilizer, but this has never been enough to counteract the constant demand on the soil.

Even prior to this major degradation of the land, the Madurese were unable to produce enough for their subsistence needs. Meilink-Roelofs (1962: 111) gives an impression of Madura as a land of plenty, “rich in rice and other foodstuffs”, but this is at odds with all the evidence.⁸ Rather, from the time of first European contact Madura was

⁷ When I was undertaking fieldwork in a *kampung* in Sampang in 1998, I was taken by my host on my first day to meet the local religious leader, or *kiai*, but my request to be taken to the *desa* head (the *klebun*) met with no assistance. Indeed, it soon became clear that in this *kampung* the *klebun* commanded little respect. It was several weeks before I discovered where he lived, in a hamlet well removed from where I was staying. After I apologized to him for my tardiness in presenting myself, he was friendly and helpful and added that he understood my situation, because as it happened my host was his “enemy”.

⁸ Meilink-Roelofs was possibly relying here on Pires, who noted that Madura was a land which “produces many foodstuffs” (Cortesao, 1967 [1944]: 227). Pires never visited Madura, and it is probable that his opinion was based on what he heard and observed in Gresik, and possibly Tuban. Both places are very close to the western end of Madura, which had relatively good water resources and was the most agriculturally productive part of the island. It is probable that petty traders from the nearby western shore of Madura would have been common in Gresik and Tuban in Pires’ time, as has

known as a rice importing area, with the major suppliers being Juwana in Central Java, and Surabaya (Nagtegaal, 1996: 108). By the 1770s, Sumenep was importing around 21,600 *pikul* of rice annually, with most of that (17,000 *pikul*) coming from Juwana. This was in addition to around 3,200 *pikul* of unhusked rice (Knaap, 1996: 113, 224, 230).⁹ By the early nineteenth century the deficit had become worse, and the Madurese principalities were routinely defaulting on their obligatory rice deliveries to the Dutch (Kuntowijoyo, 1980: 98). But despite the volume of rice imports, rice was the staple diet for only a small proportion of the people, the privileged classes and those living in *sawah* areas. For most of the population, maize was the staple. But nor was Madura even close to self-sufficiency in maize production, and in the 1770s Sumenep alone was importing nearly four million cobs of maize per year from the mainland of East Java (Knaap, 1996: 101).

Economic disadvantage under self-rule

The combination of a dense population and low agricultural productivity made life increasingly difficult for the common people of Madura during the course of the nineteenth century. Yet this harsh economic existence was made worse still by the persistence until late in the century of a feudal social order, with a bloated upper class being maintained in relative luxury through the labour of the common people. The latter did not own land; at best, they had the right to work it. The most productive areas were reserved for the ruler, the *rato*;¹⁰ while virtually all remaining lands were incorporated into a state appanage system, known as *percaton*, which provided the incomes for the nobility and officials together with their many assistants and retainers, with the rights over given areas in some cases held by an astonishing number of individuals (Kuntowijoyo, 1980: App. 6; Touwen-Bouwsma, 1989: 141).

A similar system of social organization had formerly applied in Java as well, but after the VOC took formal control of the entire north coast in 1746 many of the rights which had formerly accrued to the rulers and the aristocracy were either taken over by the Dutch or abolished. The VOC's rule in Java was direct, albeit relying for administrative purposes on the prevailing social order; but on Madura it was indirect, with virtually no disruption of the pre-existing social system. There were three principalities on the island: Madura, with its capital in Bangkalan; Pamekasan; and Sumenep.¹¹ Each was permitted, by means of a

been the case in Gresik until the present; and that most of that trade would have been in foodstuffs: rice, fresh and dried fish, mangoes and other fruit, beans, onions, tamarind, and palm sugar. But the variety of foodstuffs for sale did not reflect the difficulties for agriculture for the greater part of Madura.

⁹ One *pikul* (a 'shoulderload' of two baskets attached to a pole) equalled 122 to 125 lb (Knaap, 1996: 192).

¹⁰ On the harshness of this policy, see de Jonge, 1989: 64.

¹¹ 'Madura' comprised the whole western half of the island. Its former capital was Arosbaya, which was also formerly the main port, but the court was later moved to nearby Bangkalan. The Dutch gave

contract with the VOC, to run its own affairs in return for compliance with certain conditions, including virtual isolation from each other and from regencies on Java except with VOC approval.¹² The VOC took over the taxation of the ports, a particularly lucrative area, and also imposed an annual tribute tax in the form of certain goods; but the numerous other taxes remained as royal prerogatives. In practice these taxes – including the so-called land tax, the payments liable to the appanage holders – were eventually all farmed out to wealthy individuals, usually Chinese.¹³

The economic burden on the common people in Madura during this period of self rule must have been far greater than had ever applied in traditional Javanese society, simply because the Madurese had no real surplus to give; and there were in addition onerous service labour requirements which were far more pervasive than had been the case in Java, where only those owning land were liable for such duty. By the middle of the century the demands of the swollen ruling class on Madura were reported to be beyond the supportive resources of the *percaton* system, and many of the aristocracy were demanding higher ranks with greater appanage and service labour privileges in order to maintain their increasingly profligate lifestyles. The abuses were so great that the Dutch government was obliged to intervene for the sake of the common people, and in 1857 a Residency of Madura was created with its administrative centre in Pamekasan. In the following year the principality of Pamekasan was abolished, followed by Sumenep in 1883 and Bangkalan in 1885. After the introduction of direct rule for the whole island, it was divided into four regencies with four parallel administrative divisions (*afdeeling*). The new arrangement was based on the old principality boundaries, with the exception of the additional regency of Sampang which was excised from the territory of Bangkalan.¹⁴

the name Madura to the island as a whole after the establishment of the Residency of Madura in 1857, and distinguished between West Madura (Bangkalan) and East Madura (Pamekasan and Sumenep). The island itself seems to have been loosely referred to as Madura long before that, however, since Pires referred to it so, presumably having been given the name by Javanese informants.

¹² The principal factor underlying this special arrangement with Madura was the military capability of the Madurese (see Cortesao, 1967 [1944]: 227; Nagtegaal, 1996: 61-63; Ricklefs, 1993: 73-76, 91-93). The Dutch made extensive use of Madurese troops to help quell revolts over the next century or so, and in return for this assistance allowed virtually complete autonomy for the Madurese states after 1830 (Kuntowijoyo, 1980: 5; de Jonge, 1989: 55).

¹³ The main reason for the leasing out of appanage rights was convenience, especially because of the highly dispersed settlement pattern. This seems to have been a deliberate business on the part of the Chinese, and *kongsi* may have been involved (de Jonge, 1989: 70).

¹⁴ The territory bounded by the regency of Sampang had already been effectively removed from the control of Bangkalan in 1864, but remained *de jure* a sub-regency of Bangkalan until 1885. In 1933 the regency of Sampang was abolished and transferred to Pamekasan (Kuntowijoyo, 1980: 6), but it became a full administrative district again under the Indonesian state.

The economy during the twentieth century

Although the common people were undoubtedly better off after the abolition of self-rule and the *percaton* system, their economic situation continued to deteriorate as the population increased. With land utilization already at its limit, the shortage of food became increasingly acute, so that by the early twentieth century Madura was in a state of “chronic famine” (Kuntowijoyo, 1980: 101-103). The government finally became seriously concerned and belatedly began to plan measures to improve living standards on the island (Grader, 1949). However, allocation of funds for this scheme was a protracted process, and the programme remained largely unimplemented due to the onset of the war and the Japanese occupation.

Since Independence living conditions on Madura have improved steadily, with tobacco especially making a significant difference to the rural economy. It nevertheless remains one of the least developed areas in inner Indonesia. By comparison with much of Java, the number of villages classified as ‘backward’ (*desa tertinggal*) is high, especially in the central part of the island,¹⁵ while education levels are low with high rates of illiteracy (Sudagung, 2001: 54).

It is difficult to foresee much improvement in agriculture given the poor ecological conditions and the already intensive use of the land.¹⁶ Fishing remains important on the coast, but there has been much less development in the fishing industry of Madura by comparison with the centres of Rembang and Pekalongan in Java, and more importantly, incomes for inshore fishers have declined significantly in recent years as fish stocks in Madura Strait are becoming seriously depleted (Koesnadi, 2002). Along with fishing, salt production has also been an important enterprise in parts of the south coast of the island, but at the present time the future of the private sector of the salt industry appears doubtful due to competition from salt production centres in Java, and cheap imported salt. As will be shown, the future of the maritime transport sector is also far from assured.

Even the towns have shared but little in the development which has taken place in Indonesia since the 1960s. Transport infrastructure is below the standard for most of Java. The railway service set up by the Dutch in the early nineteenth century ceased to operate after Independence, and there is only one proper bus service on the island, from Sumenep to Kamal. For most transport needs smaller vehicles, privately operated, must suffice, and there are often long delays for passengers arriving at Kamal wanting to travel elsewhere on the

¹⁵ During the Sixth Five-year Development Plan, leading up to the end of the twentieth century, the percentages of *desa tertinggal* for Madura were: Bangkalan, 68 percent; Sampang, 66 percent; Pamekasan, 30 percent; Sumenep, 33 percent (Muthmainnah, 1998: 21). At the present time Sampang is the poorest administrative district in all East Java, with 45.69 percent of the population classed as ‘poor’ (<http://jatim.bps.go.id/>, 11/02/2004).

¹⁶ New high-yield maize varieties have not been a success in the upland country of Sumenep (Smith, 1995: 160-161). It seems that the traditional diverse agricultural system, which has evolved to suit the local conditions, will be difficult to improve upon.

island. It is expected that the eventual land link with Java via the 'Suramadu' bridge will bring a development boom to Madura, but there has been much concern expressed concerning whether the ordinary folk of the island, lacking skills in demand in an industrialized economy, will gain much benefit from this development (Rachbini, 1995; Muttmainah, 1998).

Finally, it needs to be added that despite this picture of economic malaise and general under-development, comfortable modern houses, and even ostentatious ones, are not rare on Madura, especially in coastal villages and towns. But as an economic indicator these fine houses are deceptive, for in the great majority of cases they have been financed by working overseas, especially in Malaysia and Saudi Arabia. To access this proven route out of poverty is however now more difficult than was formerly the case, as Malaysia has taken a tough stance on illegal workers, while work in Saudi Arabia requires sponsorship from an employer.¹⁷

Outward migration

Disadvantaged by both ecology and political circumstance, the people of Madura have for centuries been looking beyond the shores of their own island for better life chances. This outward migration of the Madurese has been the most significant ethnic outpouring in the modern history of the archipelago, with the numbers involved far exceeding those of the better known outward movements of the Bugis and the Minangkabau (Husson, 1997: 98).

Not surprisingly, the most popular destination for migrating Madurese has been the opposite shore of the Madura Strait, the mainland of East Java. During the period of self rule conditions were so bad that huge numbers of Madurese left their homeland to seek employment or a better life on the other side of the Madura Strait (Elson, 1984). For the residency of Pasuruan alone, there were twenty-five Madurese villages in 1806, and by 1832 one-third of the entire population of the residency was Madurese (Kuntowijoyo, 1980: 81, Husson, 1997: 85). By the middle of the nineteenth century there were as many Madurese in East Java as on Madura itself, and the ratio has remained virtually the same since then (Hageman, 1858: 324-5; *Ensiklopedi Indonesia*, IV: 2079). Many parts of East Java are almost entirely Madurese; in 1930 the population of Panarukan and Bondowoso, both in the residency of Besuki, was 98 percent Madurese (Pelzer, 1945: 76).

With such concentrations of Madurese in East Java, it is small wonder that they tend not to integrate with the Javanese. Indeed, the sense of ethnic identity is heightened by their difference from the Javanese, and according to Husson (1997: 92), stronger than on Madura

¹⁷ The exception is for work as maids, which can be arranged through an agency. Large numbers of young women from Madura, as well as from other parts of Indonesia, have taken advantage of this option.

itself.¹⁸ The cohesiveness of these expatriate Madurese communities, and their language – unintelligible to the Javanese –¹⁹ make them all the more conspicuous to the Javanese, many of whom are still somewhat perturbed by such a large ‘foreign’ presence (Husson, 1997: 96). Madurese communities also exist in all the main coastal cities of Java, notably Surabaya (Dick, 2002: 425), as well as many other places around the Java Sea, from Riau in the west to Sumbawa in the east.²⁰ But the largest concentrations of Madurese outside East Java are (or were, until very recently) in Kalimantan, where the presence of the Madurese became so strong and so impinged upon Dayak communities that numerous ethnic clashes occurred, culminating in the pogroms of Sambas and Sampit in 1997, 1999, and 2001.

Commercial ethic

A prominent characteristic of the Madurese is their preparedness to work hard and their determination to advance materially. Although they generally lack technical skills or educational qualifications, they have been able to compensate for this with a remarkable individual drive and spirit of enterprise, which has its roots in the harshness of economic existence on the island. Indeed, Madura is an outstanding example of the interconnectedness between ecology, culture, and economy (see Clammer, 1996: 15).

In earlier times when more space was available, many migrant Madurese obtained work in East Java in fishing and agriculture, the same as they had done in their homeland. They brought their resourcefulness with them, backed by a strong sense of ethnic solidarity as outsiders, which advantaged them in their commercial dealings with the Javanese. For example, the Madurese working on the Malang coffee plantations in the 1920s regularly pooled their resources to buy the coffee crops in advance, and by such means they eventually took control of coffee production in the Malang area (Husson, 1997: 87). These days, such opportunities are no longer available, and migrant Madurese have had to turn to the informal sector in urban areas. Typical niches occupied by more recent Madurese migrants are selling *sate* (skewered meat pieces), men’s haircutting, offsidars to drivers (*kenek*) on small public transport vehicles, *becak* operators, selling goods in street markets, and unskilled labouring. On the other hand, although the number of Madurese undertaking tertiary studies is

¹⁸ In this respect it is notable that the main centre for studies of Madurese society and culture is the University of Jember, in the town of Jember, East Java. There are universities in Sumenep (Wiraraja University), Pamekasan (University of Madura), and Bangkalan (Trunojoyo University); but they are only small institutions compared with the main universities of Java, and have a strong emphasis on vocational courses such as economics, agriculture, and administration.

¹⁹ The Madurese language is much closer to Malay than to Javanese, and for this reason it is probable that the island was originally settled by migrants from Sumatra, rather than from the mainland of Java (Cribb, 2000: 31). This hypothesis is supported by the differences between the indigenous boat types of Madura and those of Central and West Java (see Appendix 1).

²⁰ A list of places around the Java Sea area with expatriate Madurese communities is provided in Piollet (1995: 153).

increasing, this has traditionally not been viewed as an avenue to economic success. This reliance on the informal sector, and opportunities for profits exceeding the usual through aggressive conduct – especially in the case of *becak* operators, and *kenek* – has further increased the conspicuousness of the expatriate Madurese in the popular consciousness, reinforcing the generally negative view of the Javanese and certain Dayak communities toward them.

Islam and the commercial ethic in Madura

This spirit of enterprise and resolute pursuit of material advancement among the Madurese is entirely compatible with Islam, with a considerable body of literature existing on the connection between Islam and trade in Southeast Asia. In particular, Castles (1967: 46-48) and Geertz (1963: 12), both focusing on places in eastern Central Java not far from Madura, emphasize the link between Islam and entrepreneurship, industry, and thrift. For Madura, a similar argument is made by Huub de Jonge, who unlike the other authors mentioned stresses not only the significance of Muslim traders in the local development of commerce, but also the role of the principal agents of Islamization, the early religious leaders or *kiai* (de Jonge, 1989: 277).²¹ Yet while Islam has doubtless contributed to the commercial ethic of the Madurese, the deepening Islamization of Madura took place in a culture already characterized by self-reliance, individualism, and thrift; and it was thus the melding of these two cultural forms which resulted in the extraordinary business drive and determination for material success of the Madurese.

As the spiritual leaders of the Madurese, the *kiai* as a group have however exerted a broader influence on economic life in Madura. Residential religious training institutions, *pesantren*, abound in Madura. The majority are small, but some are large, indeed complete communities. Although most of these *pesantren*, and especially the largest ones, are outside the main towns, their social significance and the influence of their leaders, the senior *kiai*, is profound.²² Notwithstanding their informal status, it is these charismatic individuals who are the real leaders of rural society across Madura.²³

²¹ De Jonge notes that for the town where he was based on the south coast of Sumenep, the processes of commercialization and Islamization both date from the last quarter of the nineteenth century. Although there had been Malays and other Muslim traders in the area long before that, apparently their presence and activities had had little influence on the attitudes of the general population. According to local tradition, it was only after substantial numbers began to make the pilgrimage to Mecca after 1850, and the building of a large mosque in 1865, that religious observance began to deepen (de Jonge, 1989: 242, 277).

²² The word *kiai* is a deeply respectful term implying both a teacher and a spiritual leader of Islam. It is an ascribed status, and not indicative of a position held. To be a good teacher and head of a *pesantren* alone is not enough; to be acknowledged as a *kiai* an individual must also be regarded as having an ability to communicate with or to tap supernatural forces. Senior *kiai* are widely regarded as having extraordinary powers (cf. Jordaan, 1985: 41-43). The most successful ones are charismatic

The influence of these religious leaders has arguably disadvantaged Madura economically. According to Touwen-Bouwsma (1988: 269-270) the *kiai* as a group have been the major obstacle to the political and economic integration of Madura into the Indonesian state. This attitude of the *kiai* toward the state and its officials has in turn influenced the vocational choices available to Madurese people in general, through the overwhelming favouring of Islamic rather than secular education, and opposition toward major economic development.²⁴ Consequently, the only route for advancement for most Madurese has been through hard work and enterprise. However, although many Madurese are scrupulously fair in their business dealings, in more than a few cases this determination to succeed has led to unacceptably aggressive and even dishonest dealing, giving the Madurese a poor reputation with other ethnic communities. This has been especially the case in Kalimantan, with the ethnic eruptions of 1997, 1999, and 2001 preceded by a long list of lesser incidents and grievances (see Petebang and Sutrisno, 2000: 201-204).²⁵

Maritime capability

The Madurese have long been noted for their maritime orientation. Although he never visited Madura, Pires heard plenty about it from others; and among the information which he considered noteworthy about the place was that it had “many lancharas” (Cortesao, 1967 [1944]: 227). Pires’ use of the term ‘lanchara’ suggests undecked utility vessels, of between eight and fifteen metres in length;²⁶ and this association of Madura with vessels of this sort has continued into the modern era. As well as the nearly three thousand trading vessels based in Madura in the early years of twentieth century,²⁷ there were an astonishing 8,574 vessels engaged in fishing, of which 1,720 were *mayang*, moderately large open vessels with crews

personages, and skilled at cultivating the aura of omniscience upon which their success largely depends (see Mansurnoor, 1990).

²³ As the elite of modern Madura, the *kiai* as a group have been compared to the royalty of the old regime (Mansurnoor, 1995). On the historical background and other factors which led to the extraordinary status of these religious leaders, see Touwen-Bouwsma (1988: 270-275).

²⁴ As in the case of the opposition of the *kiai* to the Suramadu bridge project (see Muthmainnah, 1998). These attitudes should not however be misinterpreted as religious extremism, and it is appropriate to add that in my experience the *kiai* whom I have met on Madura have been without exception gentle and hospitable persons.

²⁵ The Indonesian anthropologist Professor Parsudi Suparlan, who chaired a panel inquiring into the cause of the ethnic conflicts in 1997 and 1999 in West Kalimantan, has commented on the aggressive and even downright dishonest business tactics of some Madurese in that province (cited in Petebang and Sutrisno, 2000: 141-142). The prevalence of such attitudes may well be linked to education, for Sudagung (using a base of 400 respondents, in the early 1980s) found that 79 percent of his 400 Madurese respondents in West Kalimantan had no schooling whatsoever. Significantly, most of these migrant Madurese to West Kalimantan came from very impoverished areas of West Madura (Sudagung, 2001: 75-76).

²⁶ According to Mills (1930: 159) the word ‘lanchara’ is derived from the Malay *lancaran*, meaning a fast utility vessel (*lancar* = swift), propelled by oars as well as sails. This etymology makes sound sense, and fits the sort of vessels which the Madurese would typically have used for inshore work.

²⁷ See page 49.

of fourteen or more men (*Samentrekking... visschteelt*, 1905: 18).²⁸ The coastal Madurese were indeed a maritime people. As a 1907 official report stated, “In the strand villages [of Madura], all the men are seafarers.” (*Overzicht... vervoerwezen*, 1907: 131.)

The geography of Madura, with its long coastline relative to land area, was obviously a major factor contributing to this seafaring way of life. But so too was the ecology of the island, with its often discouraging agricultural returns. Maritime occupations, both fishing and shipping, in general provided a better standard of living on Madura than did agriculture. According to the Dutch observer Hageman, who was in Pamekasan at a time when the population was suffering under the exactions and abuses of the aristocracy, only the coastal villages offered a decent living standard for the common people (Hageman, 1862: 13, noted in Kuntowijoyo, 1980: 72). Hageman’s view is supported by Kuntowijoyo, who notes that for 1871 fishing vessel operators were the highest tax-paying group in Madura, while workers engaged in fishing were similarly better off than those working on the land (Kuntowijoyo, 1980: 302, 304). It is thus hardly surprising people that people tended to gravitate toward coastal villages, which became larger and more clustered than the agricultural settlements of Madura.

Although the rewards and opportunities of the fishing industry alone would have been sufficient cause for the ‘coastal drift’, the chronic agricultural shortfall of Madura also provided opportunity for owners of larger vessels. Many of these vessels were engaged in short-haul work, carrying groups of petty traders and their wares across the Madura Strait to such places as Situbondo, Besuki, Probolinggo, Pasuruan, Surabaya, and Gresik; while on the return trip these petty traders would typically bring rice or maize. So dense was this maritime traffic from Madura that in the early twentieth century there were at least 4,000 trading vessels calling annually to the small port of Probolinggo (van Deventer, 1904: 208). Other vessel owners with greater financial resources or financial backing traded on their own behalf, including to destinations such as Juwana, Jepara and Tegal.

The goods exported from Madura to pay for the rice and maize were notable for their variety. Knaap’s study of the 1770s shows that the main export goods at that time from Bangkalan and Sumenep were fish, timber (teak), textiles, mats, oil (unspecified), tamarind, dyewood, and hides (Knaap, 1996: 228-230). Much the same picture applies for the middle of the nineteenth century, with Madurese perahu carrying a wide range of export goods: textiles, garments, umbrellas, cotton yarn, kapok, dried fish, peanut oil, rope, firewood, bird

²⁸ For a thorough description of *mayang*-type vessels, see Burningham and Stenross (1994). The name means to use the *payang*, a type of seine net. These nets and their associated gear were large (see Surink, 1926), as they still are today, necessitating a large crew and boat to carry them. But there were upper limits, since the boat needed to be rowed a lot during the fishing. Since about 1980 the oars have been replaced by side-mounted engines, with the net worked on the opposite side to the engine.

nests, and livestock. Goods carried on the return to Madura were less varied: rice, *padi* (seed rice), maize, tobacco, gambir (used in tanning hides), dye, and coffee (Kuntowijoyo, 1980: 123). In addition to exports to Java and other places around the Java Sea, there was also a good deal of maritime trade between the three principalities of Madura, involving a wide range of goods (Kuntowijoyo, 1980: 125-126).

The vessels used in this trade were not large, and Knaap's observation that maritime trade along the north coast of Java during the 1770s was carried out by a large 'mosquito fleet' (1996: 37) is particularly appropriate for Madura. Looking at one of the major trade connections with Madura, the Juwana-Sumenep route, the average volume of rice carried per vessel bound for Sumenep was only 132 *pikul*, or about seven tons, significantly less than the typical cargo in the rice trade along the north coast of Java at that time (Knaap, 1996: 113). The most common vessel types used by Madurese at that time were the *mayang*, which as noted earlier was essentially a fishing vessel; the *konteng*, which was larger but otherwise similar to the *mayang*; and the *pencalang*, a deeper-bodied fully-decked vessel.²⁹ None of these vessels were however indigenous to Madura, and all three were operated from ports along the north coast of Java. A type that was purely Madurese was the *bedouang*, a large planked outrigger vessel, but this was used mainly in Madura Strait and was less important as a trading craft than the other three.

Although the vessels used were small, with correspondingly small profits per voyage, their combined economic role was very significant. In the words of the social historian Kuntowijoyo (1980: 76), "sea transportation had long been the lifeblood of the Madurese". But despite this dependence on maritime trade and the abundance of Madurese perahu, Kuntowijoyo then goes on to state that "there is little evidence to suggest that the Madurese in the middle of the nineteenth century were a great seafaring people" (1980: 129). He does not provide an adequate justification of this view, however. He could hardly have been referring to the scope of the maritime activities of the Madurese and the ports around the archipelago visited by them, since he himself notes that during the late 1840s Madurese perahu were a common sight in the harbours of Kalimantan, Palembang, Riau, and Singapore (Kuntowijoyo, 1980: 123). Indeed, a trading relationship had existed between

²⁹ For trading purposes it is probable that many *mayang* had short high deckhouses added; one such vessel is illustrated in Thorn (1993 [1815] : xxviii). The *konteng* was structurally similar to the *mayang*, but the bow timber (*linggi*) was more upright and terminated in a point, unlike the strongly curved bow of the smaller vessel. A fleet of *konteng* existed at Brondong on the Lamongan coast not far from Tuban, until about 1990 (see Burningham and Stenross, 1994: 107). The *pencalang* was originally a Malay type which eventually gained favour right along the north coast of Java (Knaap, 1996: 34, 155), presumably because of its superiority for trading work over the other two types. An example is illustrated in Paris (1842: Plate 85), but it is erroneously described there as a *mayang*. A few vessels of this type existed as late as the 1980s along the Lamongan coast, where they were called *cemplon*, and this was in fact the name used in the nineteenth century (van Deventer, 1904: 108). More striking vessels of this type were built in Madura, where they were called *kacik*.

Madura and Malacca in Pires' time (Cortesao, 1967 [1944]: 223), although it is unclear whether this trade was conducted with Malay or Madurese vessels, or both. But Madurese perahu had been regular callers to Malacca during the seventeenth century, although they were infrequent visitors thereafter (pers. comm., Radin Fernando, 1/4/2004).

Presumably Kuntowijoyo's view that the Madurese were not a great maritime people in the mid-nineteenth century was based on the modest size of their vessels, with few exceeding the ten *last* capacity that he seems to regard as significant.³⁰ Certainly, it is true that most Madurese vessels at the start of twentieth century were much smaller than this. The average listed capacity for Madurese perahu in 1903 was only about 16 cubic metres (*Samentrekking... vervoerwezen*, 1906: 20), a size considerably below that of many transport perahu of the late eighteenth century. However, as Dick (1975a: 71) has pointed out, there is considerable evidence to suggest that the size of perahu in general declined during the nineteenth century.³¹

Whatever the reason for his view of Madurese perahu shipping at that time, Kuntowijoyo does nevertheless make it clear, both by implication and by reference (1980: 76, n.1) that the Madurese did later on become 'a great seafaring people'. Unfortunately, he gives no indication of how that transformation occurred – if there was indeed any such transformation at all.

Rather, it seems that the Madurese had already for centuries been a leading maritime people in the archipelago, albeit not as dominant as they were to eventually become. The infrequency of Madurese vessels visiting the inner Malacca Straits from the eighteenth century onward was not because of any lack of maritime capability, but rather the restrictions imposed by the VOC. The Dutch were concerned about trade from Java to the inner Malacca Straits (north of Riau), and passes to that area were only obtainable from Semarang, Cirebon, or Batavia (Knaap, 1996: 17). That did not exclude the possibility of Madurese vessels sailing first to Semarang to get a pass to go on to Malacca; but in practice the various administrative obstacles put in place by the Dutch do seem to have curbed direct Madurese long distance trade, with much of the latter becoming subsumed during the eighteenth century under Javanese trade to the western archipelago.

³⁰ One *last* was theoretically equivalent to 4,000 lb (Knaap, 1996: 192), but the term was often used loosely for cargo purposes. A ten *last* vessel can be assumed to have had a capacity of about ten gross tons.

³¹ For trading vessels, as opposed to carrying vessels, moderately small size was often desirable. Among Madurese perahu calling at Singapore in the late 1940s, the larger examples were typically of about 50 cubic metres capacity, a size which reflected increasing opportunity for perahu in freight work during the 1930s. These Madurese vessels, of the *letelete* type (see Chapter IV), were moreover of similar capacity to the Bugis *pinis* visiting Singapore during the same period – although the *pinis* appeared larger to the untrained eye because of its high standing spars and its enormous bowsprit. (From data in Gibson-Hill, 1950: 112, 128.)

This obfuscation of the real trade situation as a consequence of the pass requirements is well illustrated by the example of Madura's most famous export commodity, salt. Salt had been exported routinely from Madura to Malacca in the late seventeenth century (Knaap and Nagtegaal, 1991: 131), but in the 1770s most salt imported into Malacca came from Semarang, Surabaya, Gresik, and Cirebon. Although these places all had their own salt producing areas, their role as 'secondary emporia' under the hierarchical port system obscured the reality of the salt trade, with most of Semarang's salt exports, for example, originating from Rembang (Knaap, 1996: 121-122).³² According to the record from VOC passbooks, salt exports from Sumenep were nonsensically small at 12.5 *koyan* (about 25 tons), while the average exports from Gresik and Surabaya were relatively vast at nearly 1000 *koyan* each (Knaap and Nagtegaal, 1991: 145).³³ But despite this statistical nullification of the salt industry of Sumenep, 10 to 20 percent of the volume of salt carried from Surabaya and Gresik was taken by vessels whose skippers resided in Madura (Knaap, 1996: 122-125); and given that most of the salt from those two ports went to the Straits and Kalimantan, it can be reasonably concluded that the Madurese familiarity with trade and navigation to these places was maintained regardless.

But while Madurese involvement in indigenous shipping during the late eighteenth century was undoubtedly understated, this in no way explains how the Madurese were able to gain the ascendancy in this field while the indigenous shipping 'capital' of Rembang-Lasem withered. Nor does the special situation of Madura under self-rule for so long appear to offer any clue in this respect. The Madurese economy was in general weak throughout the period of self-rule, while the economy of the rest of Java surged ahead under the aegis of the colonial state. The great vector of change in the nineteenth century, the Cultivation System, barely touched Madura, because of the limited suitability for profits from agriculture; and nor were there any major trade centres on the island. Sumenep was the most important place for trade, but it was small compared to Surabaya and Semarang, and even Cirebon and Banten. The salt industry of Madura did expand during the nineteenth century, but as will shortly be shown, the benefits of that expansion went primarily to the Netherlands Indies state rather than to the people.

There was in fact little about this relative isolation from the developments taking place in Java which would seem to have been conducive to the rise of the Madurese as a major force in maritime trade. In particular, the preservation of the traditional pattern of

³² Under the hierarchical port system, Batavia ranked as the primary international 'emporium', followed by the 'secondary emporia' of Surabaya, Gresik, Semarang, and Cirebon. Long-distance inter-island trade was supposed to be conducted from these secondary emporia, so that cargo from Sumenep to Banjarmasin, for example, was in theory supposed to go via Surabaya or Gresik, rather than directly.

³³ Bangkalan, then a major salt producer, was recorded as exporting 78 *koyan*. Although about six times as much as the total recorded for Sumenep, the amount still seems small.

social organization, dominated by the aristocracy and the principality officials, hardly seems conducive to the emergence of a middle class of maritime entrepreneurs (cf. Castles, 1967: 4-8). In the late seventeenth century long distance trade ventures from Sumenep to Malacca were still predominantly, if not entirely, controlled by the local aristocracy – as was still the case for other centres along the north coast of Java (Knaap and Nategaal, 1991: 131); and to judge by the list of vessels owned by Cakraningrat, the *rato* of West Madura, in 1780, the elite still had a major role in maritime trade ventures from Madura in the late eighteenth century.³⁴

Yet despite this dominance of trade in Madura by the aristocracy in the late eighteenth century, a significant entrepreneurial middle class did emerge. The most powerful members of this group were Chinese who, with their wealth acquired through local and inter-island trade, purchased the rights to taxation of appanage areas from nobles. But beside these Chinese, and a few Arabs, there were also cases of wealthy indigenous commoners who became tax farmers, the number of whom would probably have been greater if the nobles had not preferred to lease their land to Chinese (Kuntowijoyo, 1980: 150-151, 157).³⁵ Indeed, the very rigidity of the hierarchical social system on Madura may well have contributed to the growth of an entrepreneurial class, as trade was for the ordinary Madurese the only possibility of social advancement. Turning to the maritime field, it is therefore not surprising that some indigenous Madurese became owners of substantial vessels. In the year 1871, for example, there were three schooners and a barque based in Sumenep, with one of the schooners native-owned and the other vessels belonging to Arabs; Pamekasan had three schooners, two owned by Madurese and the other by a Chinese; and most significantly, Sampang had a fleet of five *perahu toop* with an average capacity of over thirty tons, all owned by Madurese.³⁶

Yet these large native-owned vessels were clearly few in number, and incongruous with the very large number of smaller trading vessels of entirely different type which existed in Madura three decades later, with vessel ownership moreover very widespread. Indeed, the wealthy entrepreneurs with their European-styled or hybrid vessels apparently disappeared

³⁴ Cakraningrat owned one *bark* (brigantine), one *chialoup* (a large fore and aft rigged vessel of European build), eight *pencalang*, and at least twenty *mayang* – a larger private fleet than that owned at the time by any of the rulers along the coast of Java itself. Information on the vessels owned by Cakraningrat's counterpart in Sumenep, the *rato* Natakusuma, is not available; but given that he was then the wealthiest aristocrat in all Java, and that Sumenep had such an involvement in long-distance trade, it is highly probable that his private fleet was also impressive (Knaap, 1996: 77).

³⁵ The most likely reason for the bias in leasing to Chinese is that as 'foreigners' these individuals were outside the prevailing social structure. To lease to an indigenous commoner would probably have been regarded as undermining the notion of inherent superiority upon which the whole tribute-paying system depended.

³⁶ *Regeerings Almanak*, 1871: 466, noted in Kuntowijoyo, 1980: 128-129. The listing of vessels of over ten *last* (about ten gross tons) continued well beyond this date, but after 1873 no information is available on who owned the vessels.

from the maritime transport scene, for among the vessels which were to dominate Madurese perahu shipping for the greater part of the twentieth century there was no trace of European influence in either hull design or sailing rig. The most likely reason for the disappearance of these large European-inspired sailing vessels is that they were unable to compete against the steam shipping and land transport infrastructure established by the Dutch. Rather than looking to a wealthy entrepreneurial class to explain the ascendancy of Madurese perahu shipping over the Javanese, it thus seems more useful to consider cultural-ecological factors.

As noted, the poor returns from agriculture on Madura were conducive to a coastal drift. The returns from fishing and maritime trade were not always lucrative, but they were in general significantly higher than that obtained from agriculture alone. The excesses of the *percaton* system tended to exacerbate this difference, so that during the period of self-rule land ownership was actually a burden on many ordinary folk (Kuntowijoyo, 1980: 361). A maritime livelihood offered not only better income but also more varied opportunity for profit, and vessel owners could reasonably expect a fair return on their investment because of the great dependence in Madura upon commodity exchange. Large vessels were not necessary for this work, especially for trade across the Madura Strait. This situation encouraged not so much wealthy investors as a great many small-scale entrepreneurs, and it was upon this foundation that the maritime capability of the Madurese primarily depended.

But there were also psychological factors conducive to a maritime vocation. The Madurese have for centuries been renowned for their individualism and self-reliance, a consequence of the harshness of economic existence in their homeland and the great dispersion of the population into small hamlets, in many cases carved out of the countryside in a ‘frontier’ culture. This individualism often spilled over into the realm of lawlessness, to the extent that in Java during the early eighteenth century, Madura was “the centre par excellence of organized banditry” (Nagtegaal, 1996: 182).

Such an individualistic and opportunistic culture would naturally have found scope for expression in seafaring, where wit and daring could make a great difference to success. Thus Hageman, after having visited coastal centres of Madura in the mid-nineteenth century, described the coastal Madurese as “a bandit in the guise of a fisherman” (1858: 346). Another Dutch observer, writing at the start of the twentieth century, described the Madurese as a ‘fisherman-shipper’ by nature, and added: “He is much more than a mere landsman like the Javanese. His character is different; he is bolder, with a greater lust for adventure; wilder as well, by comparison with the submissiveness of the Javanese... Formerly notorious pirates – with seafaring a veneer to allow them to go about their business with a semblance of legality – the Madurese have always been a separate type of islander by comparison with the Javanese...” (van Deventer, 1904: 109).

Such was the nature of maritime entrepreneurship in Madura during the late

nineteenth and early twentieth centuries, dominated not by wealthy entrepreneurs but by a large number of rugged individuals who had little choice but to look to the sea for their survival and who would take whatever chances they could get. The ‘frontier’ culture of the Madurese, moving out steadily from their densely populated places of origin to settle not only in East Java but also in such distant places as West Kalimantan, South Sumatra, and Riau, was an additional factor in the maritime economy of the Madurese, providing market niches not available to the seafaring Javanese. The existence of this diaspora, the wide scope for work serving the great need for commodity exchange in Madura, the cultural characteristics of enterprise, frugality, and thrift, and the sheer resoluteness of the vessel operators enabled Madurese perahu shipping to flourish throughout the second half of the nineteenth century while the trading fleets of Rembang-Lasem and elsewhere along the north coast of Java languished.

But Madurese perahu shipping was nevertheless seriously affected by competition from rail and steam shipping, just as had been the case in Java. Especially was this the case along the south coast, where a railway was built by a Dutch company, the Madoera Stoomtram Maatschappij (MSM). This railway, completed in 1901, ran all the way from Kalianget to Kamal, with modern connecting ferry services to Surabaya, and there were also branch services between Bangkalan and Kamal, and Blega and Kamal. In addition, the MSM set up a shipping service from Kalianget to Panarukan, with smaller vessels serving other places along the south coast, and eventually, even truck and bus services (Kuntowijoyo, 1980: 291, 293). The competition from these modern transport services on land and sea was felt in perahu centres all around Madura, but especially along the south coast of Bangkalan, with a significant decline in the number of large vessels based at the port of Kwanyar as early as 1903. Even as far away as Ketapang, on the central north coast, goods which had formerly been carried to there from Java by perahu were instead being transported overland from the south coast (*Samentrekking... vervoerwezen*, 1906: 14, 15).

This competition from rail and steam shipping was especially significant because the seafaring Madurese never became involved as ‘free traders’ to the extent that the Wajo Bugis did, collecting sea produce and trading in remote places across the whole archipelago. Some Madurese vessels were involved in this sort of trade, liaising between isolated places and major centres; but in general, the goods transported by Madurese perahu were either exports from Madura, or goods in demand in Madura, notably rice, with such ‘free trading’ as went on together with this more in the way of a sideline than a staple. This was a natural pattern in an economy dependent on commodity exchange.

Some of these exports from Madura, mainly agricultural produce and handicrafts, were mentioned earlier. Madurese perahu have also specialized in the transport of bulk construction materials such as sand, coral stones, slaked lime, roofing tiles, bricks,

construction timber, and cement. But of all the commodities carried by Madurese vessels, two stand out: cattle, and salt. Indeed, these two commodities have been of such importance in sustaining Madurese perahu shipping prior to the timber boom that they deserve special attention here.

Cattle

Within Indonesia, animal husbandry is hardly an economic activity exclusive to Madura. The rearing of goats is particularly widespread around the archipelago, including in Madura; but in the case of cattle-rearing, the industry in Madura is a special case. Indeed, a colonial stereotype of the Madurese is that the ordinary man on the island ‘loves his *sapi* [cow] more than his wife’ (de Jonge 1995: 17). This of course reflects not the true nature of conjugal relationships in Madurese households, but rather the great economic importance of cattle. According to the *Encyclopaedie van Nederlandsch-Indie* (vol. II: 635), the cattle-rearing industry of Madura was reputed to be the best in the entire archipelago, and beef livestock has traditionally been the most valuable export earner of the island. This at first seems incongruous, for Madura clearly lacks the sort of extensive pasture lands associated with the cattle industry in more affluent countries.³⁷ Yet paradoxically, the importance of cattle on Madura is related to the ecology of the island.

Open country ideal for cattle grazing is rarely available in Indonesia, particularly in Java. Where conditions are suitable, wetfield rice agriculture has generally been the traditional economic activity of choice, with large livestock rearing mainly limited to buffaloes necessary for ploughing. On the other hand, for areas not suitable for *sawah* agriculture, the raising of beef cattle was a more attractive prospect, and one which could often be combined to advantage with dry field crop farming. Thus in the early seventeenth century, the main industry for the ordinary inhabitants of Tuban, a place with rather poor water resources, was the rearing of cattle and horses (Meilink-Roelofs, 1962: 284; Schrieke, 1966: 20); and the same would undoubtedly have applied at that time for many places in Madura. In those days there was enough free land to allow cattle to graze on open land away from the villages during the daytime, and in the late afternoons they were driven back to their pens adjoining the owners’ houses. But such an easy option has long been unavailable on Madura.

In the context of modern Indonesia, it is a characteristic of cattle as a commodity that lack of pasture land can be compensated for by diligence and energy on the part of the

³⁷ The Englishman G.W. Earl, who visited Sumenep by ship in 1832, mentioned Madura’s fame as a cattle-producing area, together with its “rich pastures” (Earl, 1971 [1832]: 77). Earl’s experience of the island was however limited to Kalianget and the town of Sumenep, and his view in this respect reflected his preconceptions of cattle-rearing rather than the local reality. His visit to Sumenep was moreover in early November, a time of year when the land was typically parched.

owner or carer. In this respect the Madurese excel. Their cattle usually remain penned up alongside their owners' houses, with the owners and their assistants having to fetch the large amounts of water and fodder that these animals need every day. This work is monotonous and sometimes arduous,³⁸ but it is as routine and unquestioned as feeding one's own family, and justified by the relative economic returns. Cattle were traditionally second only to land as an economic resource on Madura, and it has been argued by the social historian Kuntowijoyo that in the past the buying and selling of cattle at the local markets may have been the main source of finance for the importing of foodstuffs into Madura (Kuntowijoyo, 1980: 354-355).³⁹

The enthusiasm on Madura for cattle reflects much more than just the sale price for slaughter, however. Unlike the case for most of Java, cattle-raising complements the prevailing *tegal* ecotype, and can be regarded as part of a holistic farming system (Smith, 1995). First, the dried maize plants (that is, all parts other than the cobs) are a valuable source of food in the dry season. Second, it is useful to own one's own beast because with the long dry season and the relatively unreliable nature of rainfall in the wet season in East Madura it is vital to be able to plough the fields as soon as the first rains have fallen. Delay in this respect can make the difference between crop success or failure, or getting in a second or third crop (not necessarily maize) late in the wet season (Smith, 1995: 164). Buffalo could be used for ploughing, but the local cattle are better suited to the dry conditions and the heat, and require much less food and water. Furthermore, if the draught animal is a cow, as is mostly the case, it requires less food and water than a bull, is easier to control,⁴⁰ and has the further advantage that it can produce offspring. And most importantly, even if one does not own a field, or have access to one, it is still possible to own, or tend, cattle. Many fishermen own cattle, penned alongside the house; and when grass is available, the animals can be tethered during the daytime along the shore. It is not necessary to raise cattle to full maturity; indeed, it is common for an animal to be sold two or three times, to different parts of

³⁸ The gathering of food for cattle is a very time consuming task, and a constant problem in the late dry season when gatherers have to resort to leaves cut from trees, or fodder from the residues of crops, especially maize leaves, stems, and flowers. Because the work is so demanding, often an owner will allow another to care for his animal, with the profit being divided between the two. The problem of gathering food can be so great in the dry season that farmers from the islands to the east of Sumenep sometimes even take their animals by perahu all the way to the mainland of East Java to let them graze along the shore until they are replete, before sailing with them back home (Smith, 1989: 281).

³⁹ In 1906, 65 percent of households in Pamekasan owned cattle (Kuntowijoyo, 1980: 352, 360); while Glenn Smith noted that in the subdistrict of upland Sumenep which he investigated during the 1980s, almost every household either owned or tended cattle (Smith, 1989: 279).

⁴⁰ By comparison with most domesticated bovines, Madurese cattle are temperamental creatures. Cows outnumber bulls by at least two to one across the island, and it is significant that in Sumenep, the driest area and thus the most difficult for food, there are around five cows for every bull (Smith, 1995: 165). Given this preference for females, Smith goes on to suggest that the well known bull races of Madura may have been devised as a means of ensuring a good supply of breeder bulls with the sought-after qualities (1995: 166).

Madura, before being finally sold for slaughter. In particular, young male cattle from Sumenep, where gathering food during the dry season can be difficult, are often sold to owners in Sampang or Bangkalan for 'fattening'. On cattle market days the streets in the strategically located market towns can be so blocked up with cattle and vehicles for transporting them that it can be difficult to make one's way through the throng even on foot.

The Madurese are not themselves major consumers of beef. Beef can be bought in large markets, but such meat as is eaten is mainly from goats, with beef reserved for special occasions. By far the major market has been Surabaya, and the coastal towns of East Java, especially Pasuruan and Probolinggo. Cattle were formerly carried by perahu to these major markets from centres virtually right along the southern coast of Madura, from Kamal to the eastern islands. Cattle were also exported in smaller numbers, by perahu, to Sulawesi, Kalimantan, Bangka, Beliton, and other places across the Java Sea. This export trade in cattle was controlled by indigenous Madurese merchants, and was one of the few important business lines not dominated by Chinese entrepreneurs. The trade was at its peak at the end of World War I, when over 100,000 cattle were being exported annually. By 1927 cattle exports had fallen to 71,000 head, but with the total value of cattle exported and slaughtered within Madura for that year at around four million guilders, one of the largest amounts to figure in the overall indigenous economy (Kuntowijoyo, 1980: 358), it was still a very significant trade.

The transport of cattle to East Java was dominated by perahu, but there was tough competition from the rail and steamship service operated by the MSM, with the perahu operators moreover disadvantaged by bureaucratic discrimination against them. Perahu departing Kamal (to Surabaya) had to pay clearance fees to obtain a departure permit, while the MSM vessels were exempt from this requirement. The time wasted in this procedure was critical, because it was apparently so contrived that the perahu, carrying cattle, would arrive late for the Surabaya cattle market, whereas the MSM vessel was always able to arrive in good time. But despite this discrimination and the efficiency of the new services, perahu shipping managed to survive along the south coast by undercutting the rates charged by the MSM, and as late as 1937 the transport capacity of perahu from the towns of Kertasada (near Kalianget), Prenduan, Pamekasan, Sampang, and Bangkalan still exceeded that of the MSM (Kuntowijoyo, 1980: 296-297).

Since the economy began to move ahead in the late 1960s, the role of perahu as transporters of cattle has steadily declined. In recent decades virtually all cattle exported from Madura to Java have been carried by truck, via the Kamal vehicular ferry, with those from the eastern islands being trans-shipped via Kalianget. Although some livestock, cattle and goats, are still exported from the north coast to Kalimantan, as a perahu cargo item cattle are no longer significant from there as well. But as will be shown, the economic mainstay of

cattle transport was a significant precursor to the involvement of Madurese perahu in the transport of timber from the Outer Islands to Java.

Salt

No other commodity is so strongly associated with Madura as salt. Indeed, Madura is still today routinely referred to in the press as Indonesia's 'island of salt'. But before looking at the special case of Madura as a producer and exporter of salt, it is appropriate to consider salt as a commodity in the context of the Indonesian archipelago.

Although salt is nowadays a cheap and commonplace item, it has been of immense political and economic significance in human history. Its value for human society has been as a preservative, and as a condiment or something to be consumed in its own right. In the case of the Indonesian region, it is the latter use which has been the more important. Despite the warm and humid climate, the use of salt as a preservative was less vital than in Europe and North America, for the reason that fresh food was more regularly available throughout the year. Salt was widely used in Southeast Asia in the preservation of fish, but for that use it never attained the importance that it did in the northern hemisphere.⁴¹ The salting of meat in the archipelago was a minor industry, since Indonesians ate much less meat than western European peoples;⁴² and there were no butter or cheese industries, both of which require salt. Salt was needed in the curing of hides, but this was not a major industry.

Salt was however extremely important in the Indonesian archipelago as an item for human consumption. Food tastes better with the addition of a little salt, but in addition the body needs a certain intake of salt, and this applies more in tropical regions because of the salt lost through perspiration. A moderate consumption of animal protein meets this physiological need, which is why true gatherer-hunter societies did not make or trade salt (Kurlansky, 2002: 9, 201). It is almost certain that the need for extraction of salt for human consumption was a consequence of the shift to agriculture, since vegetarian diets are rich in potassium but have little natural salt. The diet of Indonesian peoples was very low in animal protein, which combined with the tropical climate led to a high demand for salt.

In Indonesia salt could only be obtained from seawater, whereas the largest concentrations of people, being agrarian, lived inland. Responding to this constant demand

⁴¹ Although salt was used for the preserving of fish in Southeast Asia, less salt was required for this, per unit of fish volume, than in far northern fisheries because of the efficacy of sun-drying in the tropics. With small fish it is enough to slice them open, dip them into seawater, and leave them on the beach for two or three days. By comparison, oily northern fish such as herring required a lot of salt to preserve them, and they also needed to be packed in barrels. (See Kurlansky, 2002: 114, 139-140.)

⁴² G.W. Earl noted in 1832 that "large quantities" of beef were cured on Madura and sold for export, and that this product was prized by indigenous peoples around the archipelago. Earl himself regarded this cured beef of Madura as vastly superior to South American "jerked" beef. But as with dried fish, this curing process did not how use much salt: the meat was simply dipped in brine, coated with pepper, and left to dry in the sun (Earl, 1971 [1837]: 77).

for salt, strand peoples across the archipelago became involved in the production of salt, not only for their own needs but also as an item of barter with inland villages. Indeed, salt was the main imported item for inland villages in pre-modern Southeast Asia (Steinberg: 1987: 50). As an indication of the importance of this commodity for inland peoples, in 1852 there were an estimated three hundred vessels involved in the shipping of salt from the coast to the interior of Java via the Solo river; while in Borneo, where salt was particularly scarce, some Dayak people were reported to have paid up to twenty units of rice for a single unit of salt, and used the salt-biscuits they purchased as a form of money (van der Kemp, 1894: 134, 228).

In many cases the traditional trade in salt was of a local nature, as in the Solor Islands to the east of Flores, where strand people have for centuries produced small amounts of salt for trade with upland communities (Barnes, 1993). Similarly, salt has been a means of barter between coastal and inland people in Timor since ancient times (Ormeling, 1956: 25, 116). In other places salt transcended purely local trade. In the Sulu region of the southern Philippines, some Iranun and Samal communities were involved in salt-making on a large scale in the eighteenth and nineteenth centuries, and salt became a major line of business for Tausug traders, who sold it in the hinterland areas of the Sulu region (Warren, 1981: 70-71, 298). But in island Southeast Asia, no place was more important for salt production than the northeast coast of Java and Madura.

The reason for the importance of this stretch of coast for salt production was that it was particularly suitable for the extraction of salt by natural evaporation. In most other places across the archipelago salt was obtained by boiling seawater, an inefficient method which produced a small amount of salt at the expense of a large amount of firewood. Such techniques were acceptable for subsistence and local barter, but it was only through natural evaporation that large surpluses could be achieved. But high productivity required more than just access to a coast. In addition, it required a broad expanse of flat land virtually at sea level, soil with a high degree of imperviousness to water, and prolonged spells of dry weather. These ideal conditions for the winning of salt existed along the northern littoral of Java, about which Stamford Raffles wrote: “nearly the whole of the north-east coast of Java and Madura abounds with places well calculated for its manufacture, and unfit for any other useful purpose...” (1978 [1817], vol. I: 177).

The main traditional salt producing areas on Java were Banten, Krawang (to the east of Jakarta), Cirebon, Semarang, Rembang, Gresik, and Surabaya; while on Madura, Sampang, Pamekasan, and Sumenep were important centres of production. In each place the ruler claimed a monopoly on salt, but in practice this was farmed out to a merchant, with the salt producers given one third of the sale price, and the ruler and salt merchant keeping the rest. The salt merchants, most of whom were Chinese, became local overlords, with authority

over extensive rice-producing areas as well as the salt lands, and they exploited the populations within those areas. They sub-let the actual sale of the salt to other Chinese merchants, who in many cases charged such exorbitant prices as the market could bear (Raffles, 1978 [1817]: 178-179). This arrangement of farming out salt contracts was continued by the VOC and the early colonial state (Knaap and Nagtegaal, 1991: 142-143), as it gave a considerable income with minimal complication. But during the period of British rule the government determined to bring the sale and distribution of salt under control, both for the welfare of the population and for the benefit to its own revenues. In 1813 it abolished the contract system and decreed a state monopoly on salt, with all salt thereafter to be sold only to the government. This monopoly was retained by the Dutch after their return in 1816, although between 1829 and 1847 there was a partial return to the contract system, and considerable debate over the merits of the monopoly (van der Kemp, 1894: 1-11; *Encyclopaedie van Nederlandsch-Indie*, vol. IV: 865).

At this stage there was nothing special about the place of Madura in the salt industry, important though it was. Indeed, prior to the imposition of the monopoly, the centres for salt production which had been of principal concern to the Dutch were those of Rembang and Semarang, rather than Madura.⁴³ It was only in the 1820s that the government began to be actively concerned with salt-making on Madura, dealing directly with producers, supervising production, and exempting workers from the requirements of corvee or service labour in order to have an adequate work force throughout the dry season (Kuntowijoyo, 1980: 184). Nevertheless, the salt industry remained widely dispersed along the north coast of Java as well as on Madura.

In the second half of the nineteenth century, however, Madura became increasingly important for the government's plans concerning salt. The catalyst for this was a serious shortfall in supply which lasted from 1859 to 1865. To cope with this 'salt crisis', the administration ruled in 1861 that the salt lands of Sampang, which had been closed for thirty years in order to prevent a glut, be reopened. With the crisis over, the debate over the advantages of the monopoly by comparison with the leasing of salt rights resumed. But in 1868 the directors of the industry declared that under no circumstances should control be relinquished over Madura's salt production areas, since those areas produced the best quality salt and needed to be retained as a reserve against all contingencies (van der Kemp, 1894:

⁴³ From the 1680s to the 1740s the VOC had tried to establish a monopoly on the sale of salt to the west coast of Sumatra in order to force the inhabitants of the interior to trade their pepper and gold with the Company, but most of the salt purchased for this purpose came from the Rembang area. Rembang and Semarang were the first areas for which salt farming rights were auctioned by the Company, starting in 1744, while salt farming rights for the Brantas and Solo delta areas (Gresik and Surabaya) were auctioned from 1778 onward. In the case of Madura, the farming of salt remained a prerogative of the local rulers until the abolition of self-rule, although the Dutch did lease the saltlands in the latter part of the self-rule period (Knaap and Nagtegaal, 1991: 133-147).

266). In 1870 Madura was designated as an area for the concentration of the industry, and this decision was given force with the issuing in 1882 of an historic ordinance, "Regulations for the assurance of the salt monopoly". As well as reaffirming the government's monopoly on salt purchases for fixed prices, this new law banned the making of salt except with a licence, with licences in practice being issued only for Madura.

Salt production was limited to the south coast of Madura only, in three main areas: the lower reaches of the Sampang and Blega rivers in Sampang; at Bunder and nearby Tjandi in Pamekasan; and the land around Sumenep Bay. Some salt was made on the western part of the north coast, but that area is less suited for salt production than the south coast centres, which have three distinct advantages. First, they each have extensive areas of flat land virtually at sea level. Second, the eastern half of this coast is very windy during the dry season. The southeast wind, called in Madura the *gending*, loses most of the little moisture it carries in the mountains of East Java, and blows strongly across the Madura Strait. Nowhere along the north coast of Java is so windy during the dry season; and the stronger the wind, the greater the rate of evaporation. Third, the clayish soil of the southern alluvial areas of Madura makes an excellent base for evaporation ponds, and it was for this reason that Madura's salt was regarded as the best in the archipelago. The finest salt came from Sumenep, where the soil had a high clay content, and became rock hard with the passage of time. The salt produced in such pans was white and fine, while more porous bases resulted in coarser crystals and slightly greyish colour. Salt-water fish-farming ponds, of which there were many in Sumenep, were ideal for conversion to salt pans during the dry season (Surink, 1932: 251). Sampang also had many such fishponds.⁴⁴

The concentration of the salt industry on Madura had benefits for the government other than ensuring a steady supply. The monopoly on the salt trade was enormously profitable, with the prices received by the government from consumers up to thirty times that paid to the producers (Kuntowijoyo, 1980: 185). These high profits were however undermined by smuggling, corruption, and clandestine salt making, and the dispersed nature of the industry prior to 1870 made the policing of it difficult. The relative isolation of

⁴⁴ The raising of a saltwater fish known as bandeng (*chanos chanos*) is a traditional livelihood along this coast. The fish grow from around one centimetre in length to a marketable size, about thirty centimetres in length, in a few months. The fishponds have surrounding dikes and channels leading from the sea, making them ideal for conversion for salt production. Fish raising can be carried out throughout the year, and formerly existed as an independent industry alongside salt making. With intensification of the salt industry under the Dutch the fish farmers were obliged to make their ponds available for salt making during the dry season. In Pamekasan and Sumenep the fishpond owners in most cases became the salt producers (if they had not earlier been involved in salt production); but in Sampang, which in 1961 had been closed for three decades to salt production, many owners lost control of their holdings during the dry season. Because of the priority given to the salt industry the rights to use the land for salt making during the dry season became entrenched, regardless of original ownership (Kuntowijoyo, pp. 394-395). Until the present, it is common for private salt holdings to be used for fish farming during the wet season.

Madura promised to facilitate policing – carried out by a special ‘salt police’ force – as well as suppression of demand by producers for higher prices. Madura was also a ‘safe’ place in other ways for such an important industry, despite the strongly negative attitude of the population toward the *kafir* Europeans: a large and underemployed population, especially during the dry season; a history of military cooperation with the Dutch for suppression of insurrections; and a distinct lack of millenarianism and social and political movements by comparison with Java (Kuntowijoyo, 1980: 505, 526).

With salt no longer made in commercial quantities anywhere else, the salt industry on Madura expanded to meet the needs for whole archipelago. Large numbers of people gravitated toward the centres of production to take up the greatly increased work opportunities. The incomes among salt workers and plot owners were good by standards on Madura, and the Dutch emphasized these benefits for the local people. But any improvement in indigenous welfare was incidental to benefits for the government, and there was little concern for the plight of the population of the salt producing areas in 1869 and 1870 when production was closed down because of oversupply (van der Kemp, 1894: 267, 283; Kuntowijoyo, 1980: 185).

By the start of the twentieth century the role of the Dutch in the industry had moved beyond simply regulation, as more and more Europeans were brought in to supervise and improve production, processing, packaging, and distribution of salt. These Dutch communities on the salt lands of Madura were quite extensive, as is evident from the long rows of Dutch houses still standing today in the rural settings of Ragung and Krampon in Sampang,⁴⁵ and especially in Kalianget, which was virtually a Dutch town. From 1915 onward the state salt industry was operated effectively as a state corporation under the management of its own directors. Until this time all the salt holdings had been privately owned, but in its desire for greater efficiency in the industry the state salt enterprise began to move into production as well with the development of large holdings of its own near Sumenep, and the reopening on its own behalf of the long-closed salt lands of Gresik, near Surabaya (Surink, 1932: 253-254; Kuntowijoyo, 1980: 187, 385; de Jonge, 1993: 168).

The amounts of salt produced varied according to the weather in any year, as a single shower of rain could destroy a month’s work.⁴⁶ On average, however, total production increased steadily. Between 1911 (a normal year) and 1913 production soared, rising by approximately one million *pikul* each year to reach almost four million *pikul* (218,579 tons)

⁴⁵ For locations of these places, see Map 8, page 99.

⁴⁶ The salt extraction process lasts three to four weeks, from the time sea water is lifted into the evaporation ponds until crystallization. In practice, however, it only takes this time after rain or at the beginning of the season, as the different stages of evaporation take place simultaneously in separate ponds, and sea water is added regularly. The frequency of ‘scraping’ the crystallised salt differs between the state-owned salt corporation and private salt producers.

for 1913. The revenues from the sale of this salt amounted to 12.6 million guilders; three years later the amount reached 16 million guilders (*Encyclopaedie van Nederlandsch-Indie*, vol. IV: 867). Apart from the holdings of the state enterprise, the area under private salt production increased steadily. Especially was this so in Sampang, where private salt holdings almost doubled in extent between 1920 and 1933, to become by far the most largest private salt production area in Madura (Kuntowijoyo, 1980: 407).

In 1930 total production was 272,000 tons, with approximately 75 percent of that coming from private holdings and the remainder from the state salt lands (*Encyclopaedie van Nederlandsch-Indie*, vol. IV: 867; Surink, 1932: 254). The directors of the salt industry were nevertheless dissatisfied, and maintained the view that the industry would be more efficient if the state were to purchase all private salt lands to become the sole producer. Against intense opposition from private producers, this plan was finally achieved in 1936 (de Jonge, 1993: 169). With this compulsory acquisition of all private salt holdings, the government's control over the salt industry became absolute.

Following Independence, the Indonesian government inherited the salt lands of the colonial state. The state monopoly was retained, and in 1957 a state salt corporation, now known as P.T. Garam, was established. There was however much protest by former private salt producers against the continuation of the monopoly. In 1959, the government relented and allowed salt to be produced privately again, without restriction on location.

Given the importance of the salt industry for national revenue, this was not as big a concession as it might seem, since the state corporation owned most of the existing salt lands and also had huge advantages of capital, technology, and organization. But the private producers – collectively representing the *pegaraman rakyat*, 'people's salt industry', a term contrasting with the *pegaraman negara*, 'state salt industry' – developed new salt holdings wherever they could,⁴⁷ amounting to 10,000 hectares of productive land in Madura alone (de Jonge, 1993: 169). The government was nevertheless biased in favour of the state enterprise, and gave it increasing control over the purchase and distribution of salt after shortages occurred during the 1960s. Private producers were expected to channel their salt into the state distribution system through local cooperatives, but many of these cooperatives failed due to corruption on the part of the officials concerned. Consequently the private trade in salt thrived, most significantly from Madura to the coastal towns of East Java. However, some of the largest private producers do sell their salt through P.T. Garam's network of receiving depots and processing plants in Surabaya and Pamekasan.

⁴⁷ Salt cannot be produced on a coast open to waves, as the wave action would destroy the pond embankments (*tambak*). These limits of development were reached during the late 1990s in the Blega estuary, where a leading local salt producer tried three times to build new salt pond embankments almost at the point where the estuary runs out to the Madura Strait. Despite being reinforced with concrete blocks, the banks were each time smashed by waves.

The division between private and state enterprise in the Indonesian salt industry continues until the present. Some private producers have become wealthy, but small-scale salt producers in Madura are now facing difficult times due to competition from private producers in Java, especially in Gresik and Rembang, and more seriously, cheap good quality salt imported from India and Australia. These two factors have resulted in a drastic decline in the price of salt in recent years. The small-scale producers have been further disadvantaged because their salt is not iodized, unlike the salt from the larger producers.

With the concentration of the salt industry on Madura during the second half of the nineteenth century, the movement of salt became an important business. The government let contracts for the transporting of salt, with sailing ships used for long-distance work. Kalianget was the main loading port for ships, as it was close to the single largest salt producing area, and it was better situated than Pamekasan and Sampang for passages across the Java Sea and to eastern Indonesia. In 1894 the long-distance salt transport contract was awarded to the KPM, which to reduce costs promptly sublet the work to the European firm of P. Landberg and Sons, which operated square-rigged sailing ships. However, in 1912 the state salt enterprise formed its own shipping division based at Kalianget (de Jonge, 1993: 168). But for shorter routes, both within Madura and from Madura to ports along the north coast of Java and to Bali, the government invariably awarded the transport contracts to Chinese entrepreneurs, who relied upon local perahu operators to do the actual work. In 1894 there were 94 perahu involved in the transportation of salt in Sampang, 32 in Pamekasan, and 90 in Sumenep (van der Kemp, 1894: 282).⁴⁸

The Chinese domination of salt transport came to an end in 1902 when the government awarded the contract for the transport of salt within Madura and East Java to the MSM, which had completed its Kalianget-Kamal railway line the previous year.⁴⁹ The Dutch company easily captured the lucrative passenger market, with perahu unable to compete against the modern motorized services. But just as the MSM could not secure the transport of cattle for itself, it could not compete on even terms against the perahu for the transport of salt. The MSM had received preferential treatment from the government, since the cost of transporting salt with its services was much higher than it had been with Chinese contractors

⁴⁸ Among indigenous Madurese merchants there were probably some wealthy enough to have taken on these transport contracts, but the government discriminated in favour of the Chinese by such means as placing advertisements for the transport tenders in Dutch-language newspapers only, knowing that such publications would be most unlikely to be read by indigenous merchants (Kuntowijoyo, 1980: 157-158). The Chinese were regarded as more trustworthy and cooperative, but such bias on the part of the Dutch had a long history, dating back to the late seventeenth century when the VOC had to rely on Chinese merchants in order to conduct business on Java's northeast coast (Nagtegaal, 1996: 120).

⁴⁹ The prospects of profits from the transporting of salt had been one of the factors behind the formation of the MSM in the first place (Kuntowijoyo, 1980: 291).

relying on perahu. But in 1908 the government decided to economize, and it resumed calling for tenders for the salt transport contract, with the result that the contract passed back into Chinese hands.⁵⁰

For the short-haul transport of salt, perahu continued to be relied upon for the remainder of the colonial period, working for Chinese contractors (Kuntowijoyo, 1980: 292-293). There was also a considerable amount of direct transport by perahu to more distant destinations, and this increased in the 1950s as perahu moved into many of the shipping services left vacant by the departure of the Dutch. After deregulation of the industry anyone who wanted to transport salt was free to do so, and many private salt producers had vessels built for themselves. In some cases, perahu owners diversified into salt production. But since the 1980s, with truck transport becoming relatively cheaper, and the establishment of modern receiving depots in Camplong and Pamekasan, perahu have been used less and less for transporting salt. The only salt transported by perahu nowadays is from the south coast of Madura to the eastern hook of Java, especially to Pasuruan and Banyuwangi. For such routes perahu can remain competitive with trucks, since it is a long way around by road. The vessels engaged in what is left of this trade are not large, nor are they in any way remarkable, for this is the poor end of the perahu transport market, occupied only by those operators who cannot afford a vessel which can compete in the transport of timber from Kalimantan. But as will become apparent from the following chapter, without the long period when salt was so important as a cargo for Madurese perahu, it is unlikely that the Madurese would have come to play as significant a role as they have done in the transport of timber.

⁵⁰ The loss of the salt contract was a blow to the MSM, but it survived with the assistance of a government loan, and even expanded its services. By 1931, in addition to the railway, the company also operated a fleet of twenty-five buses, as well as five steamships, six motorships, and sixteen perahu (Kuntowijoyo, 1980: 294).

CHAPTER IV

Three vessels

In his 1950 article on the Indonesia trading vessels reaching Singapore shortly after World War II, C.A. Gibson-Hill describes three different types of perahu from Madura. One was the *golekan*, or as he also referred to it, the ‘Madura trader’; another was what he called the ‘old-style’ *golekan*; and the third was the *letelete*. These three types are quite distinct, with differences in hull form, sailing rig, construction, and ornamentation. Gibson-Hill did not give any indication as to just where in Madura these vessels visiting Singapore originated from, and his main concern in any case was the vessels themselves. But the home localities of these different Madurese perahu types is a matter of importance, because the three types were geographically specific, with three distinct zones of distribution. This pattern of distribution is the more remarkable since the three vessel types evolved independently, with none being a derivative of the others. The zone of the *golekan* was the western half of the north coast of Madura; the zone of the so-called ‘old-style’ *golekan*, actually the *janggolan*, was the western half of the south coast;¹ and the zone of the *letelete* was eastern Madura and especially the islands within the administrative district of Sumenep. Not only were the vessel types for these three zones different, but there was also significant differentiation in the economic niches which they traditionally occupied, with each perahu type tending to serve certain geographic areas and specializing in certain lines of cargo.

Taking these differences into account, it is thus possible to speak of three parallel traditions with respect to Madurese perahu shipping. The concept of these different traditions is important in this study, including in its focus on the role of Madurese maritime entrepreneurs in the Kalimantan-Java timber trade. This is so despite the fact that these three traditions are scarcely discernible nowadays, with nearly all Madurese perahu now engaged in the one trade, and the vessels almost all non-traditional types. While it is no longer possible to know which part of Madura a vessel is from even as it looms on the horizon in the Java Sea, the three traditions continue to exert a significant influence on the nature of Madurese involvement in the timber trade.

This chapter introduces the places in Madura where transport perahu are operated from, and outlines the economic niches which sustained these local fleets until such time as

¹ That the ‘old-style golekkan’ (sic) photographed by Gibson-Hill in Singapore was actually a *janggolan* of the south coast is clear not only from its bulky hull form, but also from its rudder support structure. The latter consisted of two separate stout posts with a heavy connector piece, a construction used only on the south coast; whereas the rudder support structure of the north coast is a

they became involved in the Java Sea timber trade. The approach is through the three zones of vessel distribution as noted above, with the vessels themselves serving as working icons and metaphors for their respective areas of origin. Although the vessels are not described in detail, attention is paid to their general character, for their different natures reflect the different histories and economic niches of the people who developed and used them.

The north coast

By comparison with the more densely populated and developed south coast, the north coast of Madura has a distinctly rural flavour. Along the almost dead straight coastal road the towns are small and widely separated, but the population is denser than it at first appears, with numerous agricultural hamlets in the hinterland. The coastal road is now served, somewhat irregularly, by small privately-owned passenger vehicles, but in the early part of the century this was still a fairly remote area. Lacking the good land transport services of the south, perahu thus remained critically important along this coast. And whereas the orientation of the people of the south coast has inevitably been toward the Madura Strait and East Java, on the north coast the orientation has been toward the Java Sea and Kalimantan. Here, Java seems far away, and Javanese cultural influence is weak. Sumenep may be Madura's cultural capital, but the communities of the north coast, especially the western half from Klampis to Ketapang, come closest to representing the essence of Madurese culture.

Notwithstanding the orientation toward the Java Sea, this coast is inconvenient for large perahu, with no natural harbours which can afford protection against the rough seas of the northwest monsoon. In some places there are very small inlets, hardly more than creeks, which can accommodate several perahu. But in general vessels were traditionally hauled up on the beach for the duration of the northwest monsoon. Prior to the twentieth century the most notable port along this coast was Arosbaya, situated on the northwestern corner of the island, where there is a small river. Although Arosbaya was already in serious decline in the mid-nineteenth century, there were fifty trading vessels in the port when the Dutch observer Hageman saw it in 1860 (Hageman, 1862: 6, noted in Kuntowijoyo, 1980: 71). In recent times, however, only small fishing vessels have been based in Arosbaya. The demise of the port was due to both silting up of the river, and during the twentieth century, competition from land transport coupled with modern shipping between Kamal and Surabaya (*Samentrekking ... vervoerwezen*, 1906: 15).

Prior to motorization, the vessel of choice along this coast for transport work was the *golekan*. This was not a capacious vessel by comparison with most other trading perahu types, but with its shallow easily-lined form it was ideally suited to working off the open

single broad slab with a small horn on each side to take the strop for the rudder head. The term

beaches typical of the north coast, and could be hauled up on to the sand during the northwest monsoon when the seas were rough. But while the capacity of the *golekan* was modest for its length, it was an exceptionally handsome craft. The stem and stern timbers (*antek*, or *linggi*) were sharply raked and pointed, the boldly sweeping sheer line terminated at each end in superbly fashioned scroll-shaped finials (*sompengan*), and there was much intricate ornamental and symbolic carving work. The hulls were always painted white, with a polychrome sheer stripe, and the upper portions of the end posts, and the finials, highlighted in black (Photos 6,7, 8). The general impression upon the onlooker was one of austerity and grace. For Gibson-Hill, of all the vessels he observed in Singapore just after the war,² none could compare aesthetically with these perahu from the north coast of West Madura. Nor was his admiration of these vessels limited to their appearance, for he was also enthusiastic about their behaviour in a seaway and their construction, both of which he regarded as superior to those of the Bugis *palari* (Gibson-Hill, 1950: 123, 126).³

The *golekan* was a completely indigenous perahu type, with no trace of modern influence in hull form, construction, or sailing rig; and it was moreover unique to West Madura. But despite the highly traditional nature of the design, it appears to have been a relatively recent development, as it was not mentioned in de Bruyn Kops' comprehensive 1854 work.⁴ In any case, being descended from medium-small utility craft developed for working off open beaches, the *golekan* was of a quite different lineage than the dedicated small cargo perahu of the nineteenth century, such as the *pencalang*, *cemplon*, or *toop*. Both the heritage and the lean hull form of the *golekan* were instead in keeping with van Deventer's description of the typical Madurese as a 'fisherman-shipper'; and going further

golekan was not used for vessels of the south coast.

² Along with Bugis vessels, Madurese craft were frequent callers to Singapore just after the war. Gibson-Hill noted that some of the *golekan* which he saw in port there had not been back to their home base for two years; but this was an abnormal situation resulting from the war and its aftermath. The flurry of perahu activity in Singapore at that time was connected not only to profit opportunities but also to the weak position of the Dutch who were attempting to reclaim 'their Indies'. Madurese vessels ceased calling at Singapore after 1947, even though Bugis vessels remained regular visitors there (Gibson-Hill, 1950: 109), and this difference in pattern was probably connected to the re-establishment of Netherlands control over Madura in August of that year (see Touwen-Bouwsma, 1995: 76-81). During the 1950s Madurese vessels again resumed sailing to Singapore, although in lesser numbers than before, and they continued to be occasional visitors to that port until the 1970s.

³ In contrast to his almost lyrical description of the *golekan*, Gibson-Hill regarded the *palari* as a rather ungainly craft. Similarly, half a century earlier the Dutch observer van Deventer had commented on the 'cumbersome' build and performance of the predecessor of the *palari*, the *padewakang* (van Deventer, 1904: 110; and see also *Overzicht ... vervoerwezen*, 1907: 131).

⁴ Most craft along the north coast of Madura at that time were double-outrigger vessels, called *bedouang*. The development of the major indigenous vessels of Madura is outlined in Appendix 1.

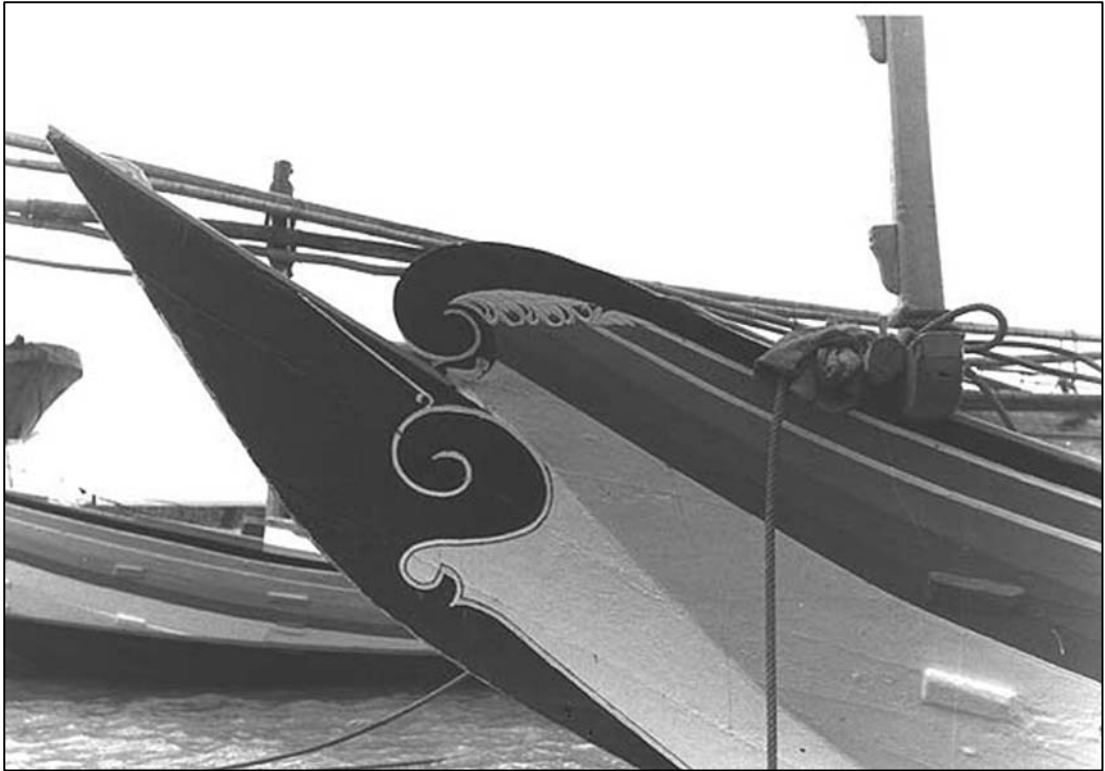


Photo 6: The bow of a fully traditional *golekan*. The detailing is carved as well as highlighted with paint. The protuberances visible on the right side of the picture, as well as on the vessel in the background, are the ends of thwarts notched through the planking, a method of hull reinforcement which in modern times has been unique to vessels of West Madura.



Photo 7: Spar crutch.

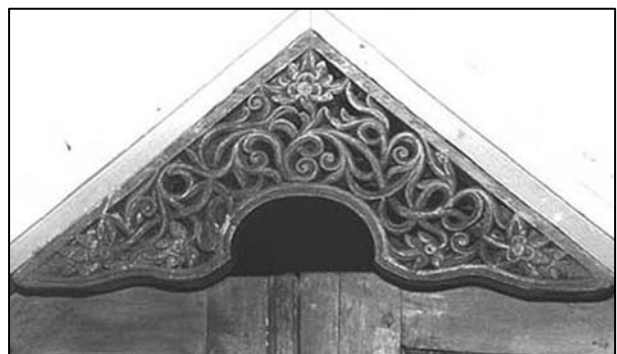


Photo 8: Apex at after end of the deckhouse.

back, it is tempting to think that Hageman's comment about the Madurese as 'a bandit in the guise of a fisherman' may well have been inspired by his experience on the northwest coast of Madura.

Local fleets of transport *golekan* were scattered along the north coast, from Klampis to at least as far as Tamberu.⁵ But of the various places where these vessels were based, two stand out: Sepulu, and Telaga Biru, both in the *kabupaten* of Bangkalan. These two centres had the largest concentrations of vessels on the north coast, but what makes them of special interest for this study is their connection with the Kalimantan timber trade.

Sepulu. The small town (or large village) of Sepulu, in the administrative sub-district (*kecamatan*) of the same name, has a population of around 10,000 people. Although a single population cluster, Sepulu consists of two *desa*, Sepulu and Prancak.⁶ Such concentration of population is in general atypical of *desa* in rural Madura, but not unusual for coastal communities. The town is tucked away on the seaward side of the main road, and from that highway there is little indication that it is a bustling place.

Being situated on an open coast, with no inlet for shelter, Sepulu had limited natural advantages for the development of a transport perahu fleet. Because of the need to haul the vessels up on the beach during the northwest monsoon, most boats were necessarily small to moderate in size. There were formerly many outrigger canoes there as well. Some of these canoes had exquisitely carved ends, and in the traditional nautical artistry they displayed, were without equal in the Indonesian archipelago during the second half of the twentieth century (Photo 9). Since the 1980s a stone groyne has been built at each end of the beach to make a semi-sheltered harbour, but this is not adequate against the northwest monsoon, and during this season the larger vessels which are now based at Sepulu move to Kamal on the south coast, where they lie to anchor in the lee of the land on a tidal bay to the east of the ferry port. In the late nineteenth century there were 270 trading vessels based at Sepulu sailing mainly to Surabaya, Gresik, the island of Bawean, and Kalimantan. But by 1903 that fleet had already declined significantly, presumably because of competition from steam shipping to Kamal and land transport thereafter to the north coast (*Samentrekking ...vervoerwezen*, 1906: 20). In the early 1950s some *golekan* from Sepulu were sailing to Singapore with mixed cargoes of palm sugar, coffee, tamarind, dried fish, and mats, along

⁵ Until recently at least, the same name was used for vessels found further to the east on the north coast, in Pasean and Ambunten; but these craft represented a recent development and were of essentially different design to the *golekan* of West Madura. Possibly the older model formerly existed right along the north coast.

⁶ Originally there was only the *desa* of Sepulu, but as the population increased the second ward was created to handle the administrative load.



Photo 9: Double-outrigger canoe at Sepulu (the bow is to the right of the picture), with a fish transport *golekan* in the background.

with considerable numbers of passengers from the island of Bawean (Piollet, 1995: 1972). This traffic to Singapore died out after 1953, although *golekan* continued thereafter to carry passengers and mixed goods between Sepulu and Bawean.

More important for the maritime economy of Sepulu was however the fish trade. There were many small fishing craft at Sepulu, but the economic mainstay for the larger vessels was long distance fish transport. These fish transporters, medium-sized *golekan* about twelve metres in length with a long deckhouse, would sail far out into the Java Sea, even close to the coast of Kalimantan, and buy fish directly at sea from Bugis, Mandar, and Madurese vessels. The fish would be salted at sea, and after returning to Sepulu would be dried for one or two days before being sent to Surabaya by truck. A few individuals became wealthy from this trade; but since the mid-1980s this buying of fish at sea has been controlled by entrepreneurs from Kalimantan, marginalizing the more distant Sepulu merchants.

With the decline in long-distance fish trading, Sepulu's economy seemed to be facing stagnation. But on the other side of the Java Sea new opportunities were beckoning, especially in the town of Palangkaraya in Central Kalimantan, where there was a strong demand for labour as this formerly small town was undergoing a developmental transformation in keeping with its new role as provincial capital. Palangkaraya is situated far inland, but accessible via the Kahayan river; and in the mid-1970s *golekan* from Sepulu, fitted with motors to enable them to progress against the current, began to carry passengers

looking for work in this distant boom town. There had always been a trickle of passengers to Kalimantan, but with the opportunities available in the construction industry this passenger service became a significant line of business, and it was not long before new larger *golekan*, no longer fitted with sails and with larger deckhouses, came into service, going to Sampit as well as Palangkaraya.

Despite this outward traffic to Kalimantan, however, Sepulu remained until the late 1980s a sleepy little town tucked away from the main highway, propped up by fishing and petty commerce. But during the 1990s, as local entrepreneurs became involved in the timber trade, it would undergo a transformation to become the most dynamic place in Madura.

Telaga Biru. The next town to the east after Sepulu, Telaga Biru is part of the sub-district of Tanjung Bumi. With around 3500 households, the town is about the same size as Sepulu, but there is only one *desa* (Telaga Biru). The size of the place belies its economic importance, however, for it is the main market town for the hinterland, and the main coastal road is often extremely congested on market days. It has also been, throughout most of the twentieth century at least, by far the most important transport perahu centre along the north coast. The *golekan* of Telaga Biru were both larger and more numerous than elsewhere, and remarkably consistent in size at about fifty-five feet in length by about fourteen feet beam. Like Sepulu, Telaga Biru is situated on an open coast with no inlet, but a stone breakwater was built by the government to form an artificial harbour; according to a former *desa* head, the breakwater was built in 1936.⁷ Until the more recent (and still not fully adequate) work carried out at Sepulu, Telaga Biru was the only place along the whole north coast with a proper harbour, and it was also until the 1990s the only place on the coast with a full port administration (*kesyahbandaran*). The building of the harbour at Telaga Biru was clearly not because of any natural advantages of the place – Arosbaya and Sepulu, in that order, would have been better – and presumably was carried out because Telaga Biru was judged by the government to have a sufficiently large fleet of substantial vessels to warrant such expense.

But despite the prominence of Telaga Biru as a centre for transport perahu during the early twentieth century, and probably a good deal earlier than that as well, the place is little mentioned in standard sources. Kuntowijoyo omits it in his list of perahu centres for the north coast, and only mentions it among his list of towns on the *south* coast from which cattle were exported to Java (Kuntowijoyo, 1980: 297, 357).⁸ Even the ‘Inquiry into declining welfare’, in its 1906 report on transport in the residency of Madura, makes no mention of Telaga Biru among the seaports for Bangkalan, with the only ports of any significance noted for that *afdeeling* being Arosbaya and Sepulu on the north coast, and

⁷ Interview Pak Yakob, 11/10/2002.

Kwanyar and Blega on the south coast.⁹ It seems almost inconceivable that Telaga Biru would only have started to become important as a centre for trading perahu after everywhere else nearby had declined markedly. Local traditional fleets can die out quickly due to changing economic circumstances, but they would hardly emerge spontaneously in a period of modernizing colonial influence. Yet it also seems surprising that the administration would have overlooked Telaga Biru for a major investigation into the state of transport in Madura. However, the records for indigenous shipping along the north coast of Bangkalan were destroyed in the early twentieth century by a fire in the district archive office (*Samentrekking...vervoerwezen*, 1906: 15), and the apparent anomalies concerning Telaga Biru may be a consequence of that event.

In any case, the maritime entrepreneurs of Telaga Biru were not apparently affected much by the competition from land transport, because their orientation was across the Java Sea rather than to the much nearer shore of Java. These were intrepid mariners, sailing wherever they might earn a profit, from Sumbawa in the east to Riau in the west, and along the southern rim of Borneo and Sulawesi (Gibson-Hill, 1950: 121). But their specialty was the western reaches of the archipelago: West Kalimantan, South Sumatra, and Riau (Map 7). This strong association with the western part of the archipelago was a carryover from the traditional monsoonal trading pattern, sailing swiftly and easily to the west with the southeast wind. These *golekan* carried a wide variety of goods, mainly produce from Madura: salt, cattle, goats, tamarind, palm sugar, dried fish, and batik produced by the women of Telaga Biru.¹⁰ There was however one further significant ‘cargo’: migrant passengers. For of all the perahu types of the archipelago, none has been more involved in the carrying of human freight than the *golekan*; and as will become clear, the term ‘human freight’ was hardly an exaggeration to describe the nature of this traffic during the early decades of the twentieth century.

In the course of their trading voyages to distant places, the *golekan* skippers, always with an eye for profit lines, became aware of the demand for labour in West Kalimantan. Local entrepreneurs, mostly Malays and Bugis who had already settled in these parts, were keen to recruit workers to clear land to develop rubber and coconut plantations, and

⁸ I am not aware of any place of that name on the south coast of Madura.

⁹ *Samentrekking ...vervoerwezen*, 1906: 20. Apart from Sepulu, the other really important perahu centre for Bangkalan was Kwanyar, which was favourably situated being very close to Surabaya.

¹⁰ Telaga Biru is the only place in Madura where batik is produced, although it was formerly made at Kedungdung on the south coast of Sampang. It is made only by the traditional method using the *canting* (‘pen’), rather than the ‘mass production’ stamp method now common in Central Java.



Map 7: Destinations for vessels from Telaga Biru and Banyuates during the twentieth century.

hearing from these skippers of the poverty in West Madura, offered to pay the skippers a commission for every worker they brought. Sensing the opportunity, the skippers recruited ‘middlemen’ to scour the countryside of West Madura, with these middlemen regaling those they met with tales of how easy it was to make money in places like Ketapang and Pontianak. In cases where people could not raise the fare, they were told that the perahu skipper would bear the cost in the first instance, and they would work off the debt soon enough.

Not surprisingly the reality was much less pleasant than the migrants, mostly young single men and women, had been led to believe. Most of them had never been to sea before, and the voyage must have been hard, especially in the cramped conditions with a hold filled with cargo, including livestock. On arrival they remained on board until prospective employers arrived, and were then sold in a virtual ‘slave market’. To pay off their debt for the passage they had to work for up to two years clearing forest. This was a quite inordinate amount of labour to pay for the ‘fare’, with the benefits all going to the employer and the perahu skipper. Indeed, the carrying of passengers became such good business that some perahu sailed with passengers only, although most continued to carry goods as well (Sudagung, 2001: 77-79).

Madurese settlement in West Kalimantan started at Ketapang in 1902, while the first Madurese settlers to Pontianak came in 1910 (Sudagung, 2001: 78). Life was extremely hard for the migrants, and many would have returned to Madura if it were not for the fear of shame in returning in failure. Spurred on by their code of pride, they redeemed their debts and relocated to new employers or to towns. Their keen awareness of their position as outsiders in the new land brought them together as an ethnic community, unlike in Madura, where communality was almost non-existent; and by helping and doing business with one another, coupled with hard work and frugality, many managed to prosper modestly. In the 1930s there was a demand for workers on the main roads, and many Madurese migrants took up this line of work. As stories of success filtered back, the flow of migrants from the impoverished hinterland of Bangkalan and Sampang increased, with new Madurese settlements being established further and further inland where there was more land available. Especially this was so in the Sambas area, reached via the port of Pemangkat, situated at the entrance to the Sambas river.

Migration to Kalimantan ceased abruptly with the Japanese invasion, but in the 1950s it began to once again gather pace, with the main flow now to the towns where there was much opportunity for unskilled but fit people as operators of *becak* (trishaws) or ferry sampans, or as road workers. These migrants still came by *golekan* from Telaga Biru or Banyuates, as passengers on trading voyages. The economic mainstay for these voyages was cattle, with many skippers also the traders of the cattle. Skippers, sometimes with financial backing from others but often on their own behalf, would buy cattle in the local market, and sell them for a handsome profit in centres such as Pontianak, Manggar (on the island of Beliton), or Pangkalpinang (on Bangka). Some of the cattle would be sold for slaughter, but others were sold for animal husbandry. In either case, the buyers were typically migrant Madurese, who rapidly came to dominate the meat and cattle trades wherever Madurese settlements were established. The vessels would make about six voyages a year, during the dry season only, returning each time to their home port. Cattle were never carried during the wet season. With their highly strung nature Madurese cattle are poor sailors, and it was not unusual for animals to die from shock in the event of an unseasonal storm.

The largest *golekan*, about 55 feet in length with a beam of about 14 feet, could carry up to forty animals, tethered on a platform inside the long deckhouse (Photo 10). As well as the animals themselves, large amounts of fodder and water needed to be carried to nourish them for the voyage. Tending the cattle during the voyage was a considerable chore, and often passengers who lacked money for the voyage would work their passage by carrying out this duty.



Photo 10: Full-sized *golekan*, of the type used for carrying cattle to West Kalimantan, at Telaga Biru. The yards have been lowered, as was normal for these vessels in port.

From the 1950s until the late 1970s there were between 150 and 200 of these large *golekan* based at Telaga Biru, with ownership widely distributed. A few owners possessed as many as four vessels, but the majority of owners had one vessel only. It was a moderately prosperous period, and there was plenty of opportunity for work on the perahu during the sailing season, with each vessel having a crew of eight or nine. The vessels remained fully traditional until the mid-1970s, when the first engine was installed. At that time very few perahu had engines, especially in Madura. Such motorization as was occurring at the time was mainly among the Bugis vessels, and it was taking place because consignors in major ports preferred to send their goods on a vessel with an engine, even though freight rates were slightly higher.¹¹ But in the case of Telaga Biru, the catalyst for motorization was a strictly local phenomenon: the relentless outpouring of people from the hinterland of Madura in search of a better life. For pure freight work engines did not offer much potential for greater profit, as for each round trip voyage more time was spent in port than at sea, and any time saved at sea would not be enough to compensate for the high cost of the engine. Rather, it was better to put the cost of an engine toward another sailing vessel, which also offered insurance in the case of a vessel being lost. But the carrying of passengers was a different matter.

¹¹ See Hughes (1984: 187-195). Hughes gives an excellent account of the process of change in Bira, South Sulawesi, from traditional village-based maritime enterprise and trading voyages in the 1930s to increasing control by traders who were not vessel owners, and the eventual need for engines in order to maintain the patronage of these traders.

Around this time there was a great deal of construction work in the new capital of Central Kalimantan, Palangkaraya. Work opportunities for labourers abounded, so there was a great demand for transport from the north coast of Madura. But Palangkaraya was far up the Kahayan river, and virtually unreachable under sail alone. Even to reach Sampit, on the Mentaya river, was difficult without an engine. Prospective passengers naturally preferred to take a vessel going directly to their destination, and those owners who could afford engines rapidly cornered the booming passenger market. By the early 1980s all the traditional vessels which had not been fitted with engines were hauled up on the beach, a forlorn spectacle. Most had bamboo mat covers to protect them against the sun, in the hope that they would eventually be fitted with motors and go to sea again. The last traditional *golekan* was built in 1983, but even then the owner was waiting to raise funds in order to fit an engine before putting it into service.



Photo 11: *Golekan* left on the beach at Telaga Biru in 1984, their owners unable to afford engines. Within a few years all were derelict, and eventually broken up.

Meanwhile, the vessels still in service had all been greatly modified, their owners having realized that adherence to tradition had no connection with profit. All had been given high and ugly superstructures extending virtually the whole length of the vessel, and the striking decorative paintwork had been replaced with a drab monotone in any colour that happened to be available. There was not even a token sailing rig. The high superstructures were built to accommodate passengers, while below livestock and salt could be carried.

This carrying of passengers was in contravention of the shipping regulations, according to which long-distance passenger services should be provided only by approved

vessels, mainly modern ships. In the case of prospective passengers from Madura, this of course meant that they would need to travel to Surabaya first, entailing considerable extra cost and trouble. Most therefore used the local service. In practice cargo perahu had often carried passengers, but only in small numbers. One or two passengers was no cause for concern, and in the case of larger group, the skipper would obtain a 'dispensation' from the local harbourmaster, with a payment as necessary to ensure approval. But the scale of long-distance passenger work being undertaken from Telaga Biru at this time went far beyond this modest 'rule-bending', with the larger vessels routinely carrying up to 150 passengers – without any proper lifesaving or firefighting equipment on board, or even a radio. Such operations would not have been tolerated from the ports of Java, but here on the north coast of Madura the local authorities 'went along with the culture', in the words of an official in the harbourmaster's office.

In most cases nothing went wrong, however, and the transition to engine power was not marked by any serious technical problem, unlike the case with South Sulawesi vessels.¹² But in August 1983 a Telaga Biru vessel sank in rough weather in the Java Sea, and 76 out of the 171 people on board were lost (Hughes, 1984: 217). Despite the scale of this tragedy, no significant change in attitude resulted, and vessels continued to embark passengers from Telaga Biru and Banyuwates in contravention of the shipping regulations. During the late 1980s some vessels from Telaga Biru also started carrying passengers to Riau, the gateway to Malaysia where high earnings could be obtained in plantation and construction work. Such work was in most cases without official approval, but because of the demand for labour in Malaysia the authorities there did not take a tough stance.

Although some operators in Telaga Biru were profiting well from this passenger business, the 1980s was a time of declining opportunity and a widening of wealth differences. Whereas there had previously been a large fleet of sailing vessels, there was now a much smaller number of larger vessels. Inevitably work opportunities as crew shrank, and there was also a moderate concentration of ownership by comparison with before; Hughes (1984: 215) mentions fifteen owners for about thirty ships in 1981. Moreover, the cultural vibrancy of the village seemed to have been sapped. Instead of the superb spectacle of the large fleet of *golekan*, of such uniform size and styling that they looked as if they had all been created by the same hand, Telaga Biru was in the mid-1980s an uninspiring place. The traditional perahu economy was stagnant, the few vessels in the port were grotesquely

¹² With the motorization of the Bugis fleet which took place from the mid-1970s until the early 1980s, there were widespread structural failures due to the thrust and vibration of the engines, and numerous vessels actually sank for this reason (Amarell, 1999: 264, n. 10). This structural problem was soon overcome by appropriate hull reinforcement.

incongruous with their ugly superstructures imposed on the traditional hull form, while along the beach once proud *golekan* were being broken up for their timber or being used as latrines. The benefits of the *golekan* to the community of Telaga Biru had always been more than purely economic, for the traditional vessel had given a sense of cultural pride and identification, almost like a totem, and this had been reflected in the labour and care that owners devoted to their craft. But now, tradition had now been displaced by economic rationalism.

With the decline in work opportunities many local people migrated to Kalimantan to improve their lot. One new line of work had appeared, however: the unloading of timber carried by the motor vessels on their return from Kalimantan. This timber was really only a sideline to the main business of carrying passengers, and to a lesser extent, cattle. Since the late 1960s some *golekan* had been carrying timber on their return voyages, discharging this at Jepara or Semarang before continuing back to Madura. However, through the 1980s increasing amounts of timber began to be brought back to Telaga Biru. It was intended mainly for local consumption, for the new houses and extensions which the most successful vessel owners could now afford. But in the 1990s this modest local timber trade would boom, with trucks from centres throughout East Java and even Bali regularly making their way to Telaga Biru to obtain the high quality timber being landed there.

The southwest coast

The most westerly part of the south coast of Madura, from Kamal to Kwanyar, is only a very short distance from Java, and the orientation along this stretch of coast is not surprisingly very much toward the city of Surabaya. But the main road from the port of Kamal does not follow the western half of the south coast, and instead leads north to Bangkalan, before leading southeast toward the town of Sampang. Consequently the western half of the south coast is more isolated than might be expected from its proximity to Java; while the more distant part of this coast, leading up to the western shore of the Blega estuary – the area of interest for this study – is very isolated.

The traditional vessel of this southern coastline of West Madura, from Kamal to Sampang, was the *janggolan*. This was a much bulkier vessel than the *golekan*, for the *janggolan* was from the outset intended for serious freight work. Gibson-Hill considered it “less lovely” than the lean and elegant north coast vessel, but he regarded it as no less singular. Indeed, the *janggolan* was perhaps the most remarkable, and certainly the most distinctive, of all modern perahu types.

Structurally it was related to the *golekan*, but the general appearance was very different. With the keel timbers projecting well beyond the hull proper at each end, and the

planking above terminating on narrow flat transoms (Photo 12), the hull form was unique among modern transport perahu. But the sailing rig was equally remarkable, a complex arrangement of sails, poles and lines found on no other type of perahu (Photo 13), and incomprehensible in its operation for those without direct experience of it. Finally, despite its purpose as a serious cargo vessel, there was nothing utilitarian about the appearance of the *janggolan*, and profuse ornamentation was a standard feature of the design. Especially important in this respect were the transoms, which were covered with carved motifs arranged in a particular pattern, highlighted with polychrome paint. Like the *golekan*, the *janggolan* was a true cultural icon, the most outstanding example of the material culture of the coastal people who relied upon it, and it was of deep symbolic as well as economic importance to them. No part of it could be changed without affecting the whole.

In the early twentieth century *janggolan* were common visitors to Surabaya. Fleets of these striking vessels were operated from Kwanyar and Sukolilo Barat, only a short distance to Surabaya, and were especially used for ship to shore work in the busy Surabaya roads. However, because of the increasing competition from motorized harbour vessels, coupled with rail and bus transport services on Madura and the Kamal ferry service, the transport fleets of southwest Madura dwindled away, and finally disappeared altogether during the 1970s. Sukolilo Barat and Kwanyar are now only fishing ports, but the fishing fleets in both places are comprised entirely of small bifid-ended vessels of the same generic family as the *janggolan*, called *alisalis*.



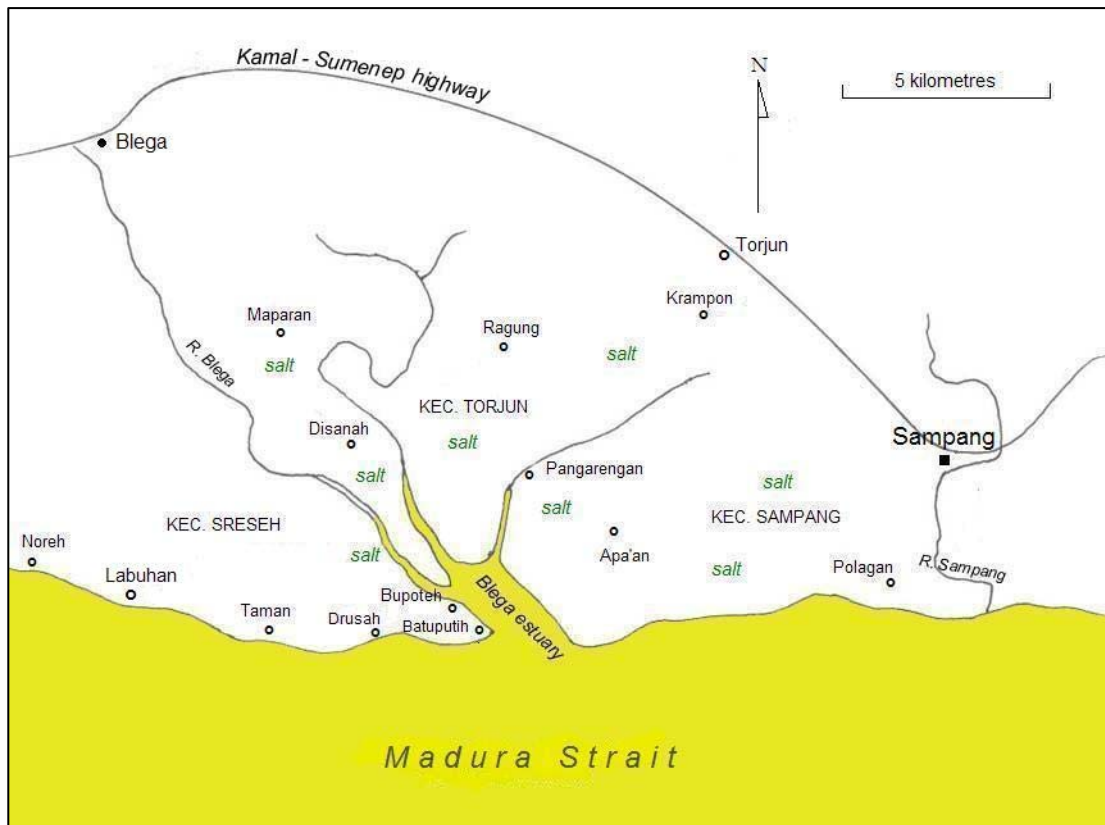
Photo 12: Large *janggolan* with the sailing rig removed, laid up for the northwest monsoon.



Photo 13: *Janggolan* under sail. The traditional wooden anchor is lashed to the rail.

Further east, however, in the area bounded by the Sampang and Blega rivers in the *kabupaten* of Sampang, the *janggolan* survived virtually until the end of the twentieth century, with many built even into the 1990s. One fleet of these vessels was based in the Sampang river, which provides access for light draught vessels from the south coast to the town of Sampang. Sampang was of old a centre for maritime trade, with a good deal of perahu traffic between there and the ports of East Java, especially Pasuruan and Probolinggo. But like Kwanyar, it was already in decline as a maritime trade centre by the late nineteenth century, and the opening of the railway line, followed by bus and truck services, would have accelerated this trend. The Sampang fleet of *janggolan* disappeared in the late 1980s, while another smaller fleet based at the island of Mandangil, a few kilometres offshore, also dwindled away around this time.

Apart from the Sampang river, the other main place for *janggolan* was the broad estuary of the Blega river, a short distance to the west. This river, the largest waterway in Madura, is referred to by locals as the *sungai rajo*, ‘great river’— although it is hardly a great river by standards in Java, let alone Kalimantan. From the estuary the river leads inland to the small market town of Blega, which was once a trading port but has long since ceased to be visited by perahu. Nevertheless, a substantial fleet of transport perahu has continued until



Map 8: The Sresch-Sampang area.

the present to be based in the *desa* of Sreseh, in the *kecamatan* of the same name, on a small peninsula on the western shore of the estuary.

Until the mid-1990s the Sreseh fleet consisted entirely of *janggolan*, all of them engineless. The deeply traditional character of the *janggolan*, with its emphasis on the aesthetic, was however incongruous with the rationalization of business approach which has typically accompanied the installation of engines in perahu fleets. In 1995 one man in Sreseh built a vessel of utilitarian design, based on the type of perahu used by Mandar vessel operators, and installed an engine. Thereafter all new vessels built were of this type, called *sepel*;¹³ while the *janggolan*, the vessel with which this community had so strongly identified, became so rapidly regarded as old-fashioned and inappropriate for the modern maritime business world that by 2002 none were left in service.

The Sreseh peninsula is a relatively remote place. Until 2000 the road to the end of the peninsula was a rough track, often difficult to negotiate in the wet season, and there was virtually no road transport to there until the mid-1980s. Some villages in the local saltlands still have no road access. There is no local market in the Sreseh peninsula, the nearest ones

¹³ Pronounced 'se-pell', with the emphasis on the second syllable.



Photo 14: The first *sepel* at Batuputih, built in 1995.

being at Labuhan to the west, and Pangarengan on the eastern shore of the estuary. The sense of isolation is further enhanced by the absence of any large clustered settlement. The population of around 1100 households is highly dispersed in hamlets in the pattern typical of rural Madura. The largest hamlets, Batuputih at the head of the estuary, and Bupoteh, a couple of kilometres upstream, are strand settlements, while the *desa* head resides in a tiny inland hamlet. For most of the population access to the outside world is by a sampan ferry service to Pangarengan, at the head of a small creek on the eastern shore of the estuary from where motor vehicle transport is available to the town of Sampang. In earlier times perahu were frequently used for transport to Java, and this is reflected in the strong social ties between Sreseh and the towns of Pasuruan and Probolinggo on the far side of the Madura Strait.

By any standards, Sreseh qualifies as a *desa tertinggal*, ‘backward village’. Most households are fairly poor, and in 1999-2000 there was still not a single person in the *desa* who had undertaken tertiary education. There are a few fishing boats in and near the estuary, although there are larger and obviously more affluent fishing villages at Labuhan and Noreh, about ten kilometres to the west. Agriculture is subsistence only, mostly maize, and even then it is not nearly enough to meet local needs. Rather, the local economy has been overwhelmingly dependent on the production, and movement, of Madura’s most important commodity: salt.

The state salt enterprise set up by the Dutch in Sampang was concentrated at Pangarengan and Ragung on the eastern shore of the Blega estuary, a natural choice because of the extensive swamp land there. Some of the salt went to the rail siding at Torjun, a

considerable distance from the lower estuary, but sea transport was also important. For the vessel operators of the neighbouring strand hamlets, there were two lines of work associated with salt. The first was lightering work, carrying salt from the packing houses at Pangarengan and further upriver to ships anchored offshore. The Blega estuary is a very shallow place, with only a narrow tidal stream running to the salt storage sheds, and a broad sandbank extending well offshore from the mouth of the estuary. Ships based at Kalianget, where the state salt enterprise had its headquarters, used to call regularly to Sampang to load salt; but because of their draught they had to anchor far out, near the island of Mandangil. This work was often hampered by rough conditions, and the boisterous southeast wind in the mornings of the dry season was moreover a direct headwind for the perahu coming out of the estuary. On the other hand, being appreciably closer to Surabaya than the other salt producing areas of Madura, the Blega estuary was favourably situated for the second line of work for perahu, direct transport of salt to the ports of East and Central Java (van der Kemp, 1894: 267; *Overzicht... vervoerwezen*, 1907: 235). The most common destinations were Pasuruan and Surabaya, but the larger perahu routinely carried cargoes of salt further east.

On these longer passages, this salt freight work would be combined with other cargoes. In 2000 the oldest former perahu sailor in the *desa* of Sreseh was a man named Maderai, from the hamlet of Drusah, who had sailed during the colonial period ('*zaman Londo*'). According to Maderai, the '*parao janggol*' (*janggolan*) would sail with a cargo of salt from Sampang in May, after the southeast wind had set in, bound for Semarang. After the salt had been discharged they would take on a load of sugar cane, and sail to Lampung in Sumatra, where the cane would be sold. From Lampung they would load charcoal, which they would then sell in Batavia, before returning to Madura for a second load of salt. Rather than Sampang, however, this second load was from Kalianget.¹⁴ The perahu would then sail again to Central Java, going via the north coast of Madura, and after discharging the salt, return to Sreseh to lay up for the wet season.

After the disruption of the war and the departure of the Dutch, the local perahu operators benefited from the decline in modern shipping services, and *janggolan* continued to be heavily involved in the transport of salt. This role became even more important after deregulation of the industry in 1959, with local entrepreneurs developing extensive salt holdings in the swamplands of the river delta. This area is bounded entirely by water, and even today there is no road access for the villages of Soro'an, Disanah, and Maparan which were built there following the conversion of the land for salt production. The perahu operators of Sreseh were ideally placed to take advantage of these new saltlands, and they could moreover now deal directly with the salt producers. A small number of private salt

producers with large holdings became wealthy, more so than any of the perahu operators. Some smaller salt producers had perahu built for their own use, to be able to directly access the salt market at Pasuruan without paying for freight or having to wait for a vessel to become available, while some of the more successful perahu operators diversified into salt production. Some enterprising vessel owners who had a reputation for integrity even worked as agents, simplifying the problems of transport and sale for the small private producers. Larger vessels sailed regularly with salt to the perahu harbour of Kali Baru, near Tanjung Priok, Jakarta, and continued to do other cargo work during the sailing season as before the war; while for the smaller perahu Pasuruan became virtually the sole destination, and salt the only cargo.



Photo 15: Small salt carrier returning to the Blega estuary after a delivery to Pasuruan.

But despite the efficiency of the transport service provided by the local perahu fleets, these engineless vessels were not part of the modernization of the salt industry which took place from the 1970s onward. As the economy surged ahead truck transport became increasingly competitive with perahu, and this competition began to become overwhelming with the establishment of new salt receiving and processing centres at Surabaya, Pamekasan and Camplong, not far from Sampang. All salt from the state salt corporation's holdings in Pamekasan and Sampang began to go to these new receiving depots, eliminating the lightering work which had been a standby for local perahu operators since the early part of

¹⁴ Interview, Maderai, December 1999. Younger informants were dubious about loading in Kalianget, but Maderai was adamant on this point.

the century. Worse, the private salt producers from Polagan, Apa'an, and Pangarengan on the eastern shore of the Blega estuary also began to transport their salt by truck. This was convenient for these producers, because there is good road access through this area. But for the *rakyat* salt producers of the western shore, in the *desa* of Sreseh, truck transport involved transshipment to a depot with land transport access, which significantly raised the cost. There was moreover strong mistrust of the *desa* salt cooperative, through which salt could be channelled into the state system.¹⁵ For these reasons, the private salt producers of the western shore have continued until the present to send their salt to Pasuruan, using local perahu. As late as 1998 most of the vessels in this salt trade were engineless, but now all have auxiliary engines.

Janggolan continued to carry salt from Sreseh to Jakarta until the early 1980s, when this long-distance niche could no longer be maintained in the face of competition from road transport and salt produced at centres on Java, especially Rembang. But the decline in the long-distance salt trade was not a serious matter for the maritime entrepreneurs of Sreseh, for since the late 1960s many of them had been involved in the timber trade, and this now loomed as an increasingly profitable area of enterprise.

East Madura and the 'Sumenep archipelago'

East Madura, taking in the two *kabupaten* of Pamekasan and Sumenep, is further removed from the mainland of East Java than is the western half of Madura. But any notion that because of its position at the eastern end of the island Sumenep might be 'more Madurese' than West Madura would be misplaced, and in disregard of the connecting function of the sea for trade and cultural exchange. On the contrary, external influence has been greater in Sumenep than anywhere else on Madura. Sumenep was favourably placed for trade with not only the eastern hook of Java, but also the Lesser Sundas, Sulawesi, and Kalimantan. Consequently, as well as being the main port on Madura for long distance trade, Kalianget also served as a transit port connecting Java with the eastern islands (Kuntowijoyo, 1980: 128). By comparison, the other centres of the south coast of Madura were little involved in trade outside the Madura Strait.

It is therefore hardly surprising that the town of Sumenep became the most important commercial centre on the island. What was remarkable, however, was its relatively high proportion of 'foreign easterners', as they were categorized: mainly Chinese, Arabs, Malays, and Bugis. In 1815 nearly 6 percent of the population of Madura were such 'foreigners',

¹⁵ The *desa* salt cooperative (KUD) became defunct in about 1990. Some producers averred in interviews that they would never sell through the KUD because of corruption, with certain leading figures allegedly routinely cheating others. This failure of local cooperative enterprises is widespread

with two-thirds of them residing in Sumenep. Apart from the obvious exception of Batavia, nowhere else in all of Java and Madura had such a high proportion of outsiders (Raffles, 1817: I: 63; II: 284-286).¹⁶ The Chinese and Arabs lived mostly in the town or port area, while the Malays and Bugis tended to settle either on the coast or on the offshore islands, especially Kangean. The 'Bugis' included Mandar and Makassarese settlers, and all three of these groups from Sulawesi appear to have been listed at times by the Dutch under the ethnic label of 'Malay' (Kuntowijoyo, 1980: 81). These 'foreign easterners' were much involved in trade, and up to the early nineteenth century some of the Malays, Bugis and Madurese of the offshore islands were also involved in piracy and smuggling (Raffles, 1978 [1817], I: 57). Finally, the Dutch presence in Sumenep was also unusually large because of the salt industry in Kalianget, and traces of Dutch influence are discernible in the local maritime culture.¹⁷ Although all these outsiders constituted a minority, their significance was disproportionate to their numbers, especially in the town and coastal areas. In brief Sumenep was the 'melting pot' of Madura. Over time, most of these outsider groups, especially the Malay and Bugis, have merged into the mainstream of Madurese society, but their cultural influence remains.

This diversity of influence is apparent in the vessel types of East Madura in the late nineteenth century. One of the most important types on the south coast of Pamekasan and Sumenep was the *kacik*, a colourful vessel based on the *pencalang*, a Malay type which had become very popular along the north coast of Java, and even as far away as Makassar;¹⁸ while in the eastern islands there were also many craft of South Sulawesi origin: *sope*, *pajala* and the larger *padewakang*, with some of the latter capable of carrying as much as fifty tons (de Bruyn Kops, 1854: 37, 43-44; van Deventer, 1904: 110; *Overzicht... vervoerwezen*, 1907: 130-131).

However, during the early twentieth century the Sulawesi vessel types disappeared from the eastern islands, while the *kacik* also began to decline in popularity. A new hybrid type of vessel known as the *letelete* gained the ascendancy, and apart from a few *kacik*, remained the only transport perahu type of East Madura until almost the end of the twentieth

in Indonesia, largely for the same reasons of cheating and mistrust (Soemardjan and Breazeale, 1993: 110-120).

¹⁶ An enduring testament to Chinese influence in Sumenep can be seen on the front wall of the main mosque of the city, which is extensively decorated with a key-like Chinese motif. This motif is called in Madura *kihong*, a term possibly derived from *Tjionghoa*, 'Chinese'. To my knowledge this is the only mosque in Indonesia with this type of ornamentation.

¹⁷ Three examples come to mind. First, the very heavy lodging (horizontal) knees bracing the hulls of transport perahu of Sumenep, and which are not a feature of traditional perahu of anywhere else (including the outer islands of the Sumenep archipelago). Second, the heavy square-sectioned rail timber (*pordu*) of the traditional fishing boats of Sumenep, again not a feature of other traditional Indonesian watercraft. The corresponding timber in the Dutch tradition was called the *boord* (Huitema, 1995: 37). Third, the rudder of the European-styled *sekoci* (named after the Dutch vessel type, *schuitje*) of Ra'as is in the classic Dutch style, and quite different from other centrally-hung rudders in modern Indonesia.

century. The *letelete* also spread to the Mandar coast of South Sulawesi (Nooteboom, 1940). The new type bore a superficial resemblance to the *golekan* of the north coast, because of common styling and ornamental features in the bow and stern; but it but was actually closer in form to the basic Sulawesi type, the *pajala*, as noted by Gibson-Hill (1950: 127),¹⁹ and it also showed influence from the Malay-Javanese *pencalang*. The *letelete* was a rugged and capacious craft, well suited to its purpose as a dedicated small cargo vessel; and although the steering arrangement and sailing rig were purely indigenous, the hull form would not have looked out of place in some parts of Europe in the mid-nineteenth century. The same could certainly not be said for the two vessels of West Madura, the *golekan* and *janggolan*.

Although there were formerly substantial fleets of transport perahu based on the mainland of East Madura, these have now all disappeared apart from a few vessels based at Pasian on the north coast of Sumenep. Since the early twentieth century most of the transport perahu of East Madura have instead been based in the islands of the ‘Sumenep archipelago’. Perahu remained more important in these islands for the obvious reason



Photo 16: *Letelete* from Giligenting, Sumenep. The mainsail has been furled up to its yard, which is left aloft in port, and rarely lowered during the sailing season.

¹⁸ See Footnote 23, page 46.

¹⁹ Gibson-Hill was contemptuous of the view of some western observers that the *letelete* was a more modern, single-masted version of the *golekan*, dismissing this notion as “merely more nonsense from Europe” (Gibson-Hill, 1950: 127).



Photo 17: The last *kacik*, *Lanceng Trisno* ('Carefree Young Man'), which worked out of Talang, Pamekasan, and operated a regular service between there and Besuki, East Java, until 1986.

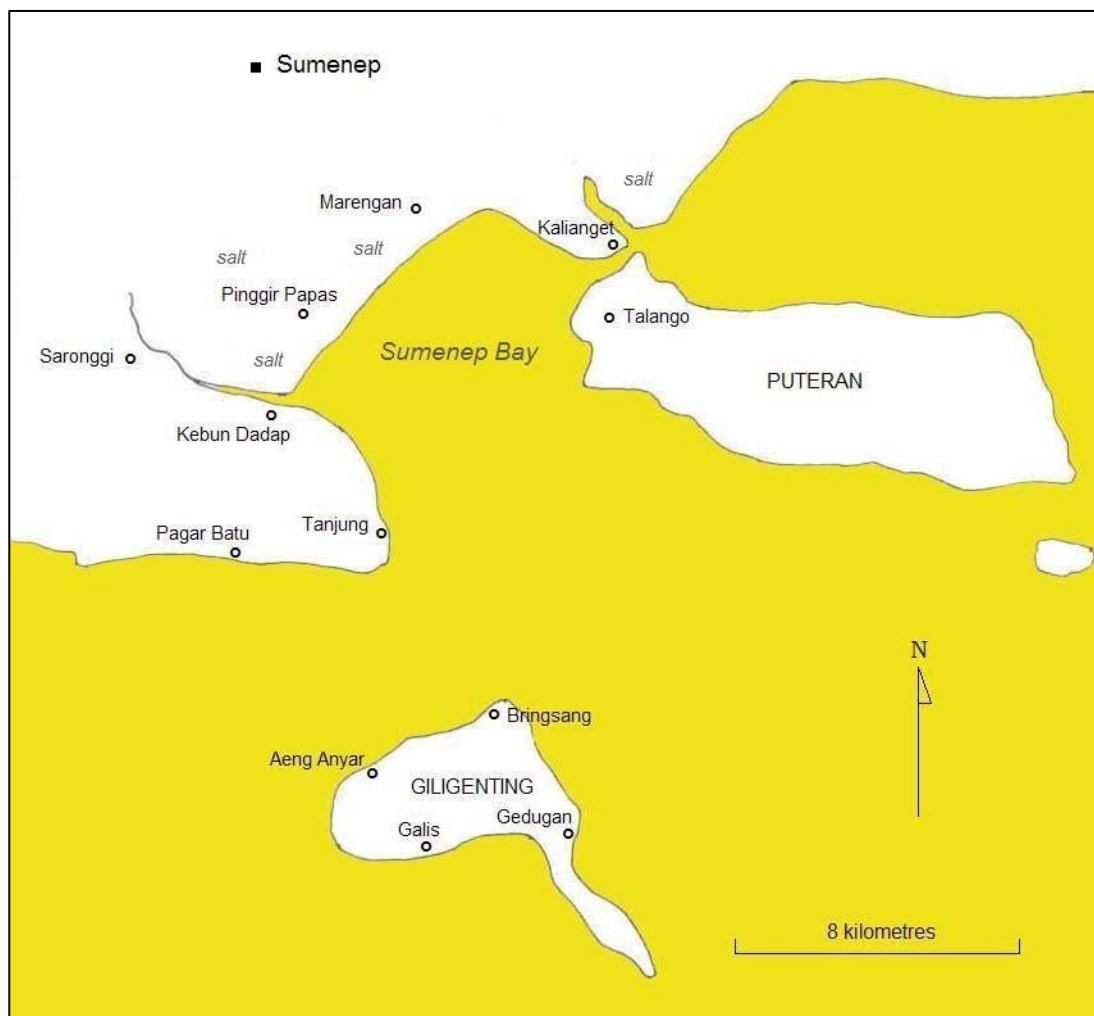
that the islanders were more dependent on perahu for their transport needs, and because of the lack of alternative livelihoods. Most of the eastern islands are too small to have a strong agricultural base, and the soil is poor with much limestone. Living standards on these islands were particularly hard during the early decades of the twentieth century: in 1933, the population of Giliyang, about 4000 people, all but starved for three months (Kuntowijoyo, 1980: 102).

All of the inhabited eastern islands had perahu fleets, but the most important have been the fleets of Giligenting, Sapudi, and the small island of Guwaguwa to the east of Ra'as – in that order. These are the places where maritime entrepreneurs have been the most successful, and they are, with the odd exception, the only islands with perahu still engaged in the timber trade. However, because the Guwaguwa vessels are mainly involved in freight work around the coast of Kalimantan rather than from Kalimantan to Java, this study will be concerned with the two former places only.

Giligenting. This is a small island, only about 15 square kilometres in area, a short distance off the Saronggi peninsula in the southeast of the mainland of Sumenep. It is part of the

kecamatan of Giligenting, which also includes the neighbouring island of Giliraja.²⁰ It is densely populated, with over 900 persons per square kilometre – the highest population density for the whole *kabupaten* of Sumenep, with the exception of the urban areas of Sumenep city and Kalianget (*Kabupaten Sumenep dalam angka 2000*). The island is divided into four *desa*: Aeng Anyar, Bringsang, Gedugan, and Galis, with transport vessels owned in all four areas. There is a concrete jetty at Aeng Anyar, with perahu ferries to Tanjung, on the adjacent mainland. The coastline is mostly sandy, and places suitable for the beaching of vessels for maintenance, or for building, abound.

A remarkable feature of Giligenting is an extraordinary number of large and nearly new but unoccupied houses. In Madura, this is very unusual, and it reflects a phenomenally outward-oriented economy. The houses are in the main owned by local families who were



Map 9: Sumenep Bay and Giligenting.

²⁰ The word *gili* means ‘small island’ in Madurese. Many place names for islands are so prefixed.

formerly involved in the timber trade in West Java, but who are now mostly in business as foodstall operators in Jakarta. Although having worked for years, even decades, in West Java, their primary attachment is still to their native island, to which they return home each year during the latter part of the fasting month. When they eventually retire, it will be to live in Giligenting.

From at least the late 1940s, Giligenting has had the largest perahu fleet and the most successful maritime economy of all the eastern islands. Until the modernization of the perahu fleet, *letelete* from this island, easily recognized by a stoutly constructed and squarish ‘doghouse’ abaft the main gabled deckhouse, were a common and distinctive sight in ports all around the Java Sea, from Sumbawa to Riau.²¹ With motorization and the building of new vessel types, vessels from Giligenting have been less conspicuous, blending in with those from other places; but they are still the most common of the Madurese timber-carriers. But just why the maritime entrepreneurs from this small island became so successful is less obvious.

At the start of the twentieth century there were many Sumenep perahu sailing to Banjarmasin, Palembang, and Riau, among other places, involved in trade on their owners’ account (*Overzicht... vervoerwezen*, 1907: 130). Although perahu from Giligenting were doubtless represented among these long-distance sailers, the Giligenting fleet was then less significant than it would later become, with more vessels at that time based at Kalianget and in the northeastern part of Sumenep, including the island of Gilijang.²² This situation changed primarily as a result of the establishment of modern land transport facilities, coupled with modernization of the port of Kalianget. The vessel operators of Giligenting were less seriously affected by these developments, as perahu were still needed to service the island economy. But that strictly local economy was small, and the continuing prosperity of the Giligenting vessel operators clearly depended on more than carrying goods and people to and from their home island.

The great boon for the Giligenting operators was the situation of the island, a short distance off the tip of the Saronggi peninsula, in the approaches to Sumenep Bay (Map 9). In normal circumstances this might not have entailed any remarkable benefit; but under the rule of the Netherlands Indies government, the position and topography of Giligenting offered particular advantages for employment in the most important industry of Madura, the salt industry. Sumenep’s best natural salt lands lay around Sumenep Bay, in a network of creeks

²¹ Gibson-Hill (1950: plate 3) shows *letelete* of this sort at Singapore in 1947. The photograph also shows another *letelete* without the ‘doghouse’, probably from Sapudi.

²² Among trading perahu of Sumenep *afdeeling* in 1903, there were 340 based at Sumenep (Kalianget), 440 in the Northeast district, and 237 in the Southeast district (*Samentrekken ...vervoerwezen*, 1906: 20). This did not include Sapudi and Kangean, which were treated as separate districts.

inaccessible to ships. With their deep draught, the ships had to anchor offshore with the salt brought out by perahu or lightering barges. But because Sumenep Bay is exposed to the full force of the southeast monsoon during the dry season – the salt-producing season – the sea conditions were often too rough to transfer the salt from barge or perahu to ship. The solution was to load in the lee of the northwest coast of Giligenting; and naturally enough, the small vessels which were employed in this work were the perahu of Giligenting.²³

Apart from this lightering work, there was also work carrying salt to the eastern hook of Java. Long-distance shipping of salt was undertaken by European sailing ships, but it was hardly economic to use these ships to transport salt just to the other side of the Madura Strait, especially because with their draught the salt would have to be transhipped to lightering vessels on arrival. This short-haul salt trade was instead undertaken by local perahu. In particular, much salt was carried by perahu from the narrow inlet of Marengan in Sumenep Bay. On a good high tide the heavily-laden perahu could scrape out of the creeks flowing into the Marengan inlet, and from at least the late nineteenth century there was a brisk traffic of salt-carrying perahu from there to Surabaya, Pasuruan, Probolinggo, Besuki, and Bali (van der Kemp, 1894: 273). Perahu from Kalianget were as well placed as those from Giligenting for this work, but the Giligenting operators had the advantage of well-established links with the Chinese entrepreneurs who gained the local salt transport contracts from the government. The Chinese contractors were able to keep their own charges low by making advance payments to the vessel owners, thereby keeping them in their debt (Kuntowijoyo, 1980: 292), and it is probable that the Giligenting owners were more easily manipulated in this respect because of their lack of alternative work. In the words of the retiring *desa* head of Aeng Anyar in 2002, a man who also owned four perahu, salt was formerly the “only cargo” for Giligenting vessels. But this salt transport work enabled the Giligenting entrepreneurs to cope relatively well during the early decades of the twentieth century, when conditions were generally difficult for indigenous shipping, and this enabled them to leave the other fleets behind.

Between 1947 and 1950, when the salt monopoly was disrupted, perahu from Giligenting carried salt from Jepara to Sumatra, Riau, and Singapore (Piollet, 1995: 80); and following the departure of the Dutch the Giligenting fleet was able to take up long distance salt transport work from Kalianget, which had formerly been undertaken by ships. West

²³ An account of this arrangement is provided by the Englishman G.W. Earl, who was on board a square-rigged sailing ship which loaded salt from Sumenep in November 1832. The loading was organized in advance, so that the morning after Earl’s ship anchored in the lee of Giligenting “several large vessels” sailed out laden with salt for trans-shipment (Earl, 1971 [1837]: 75).

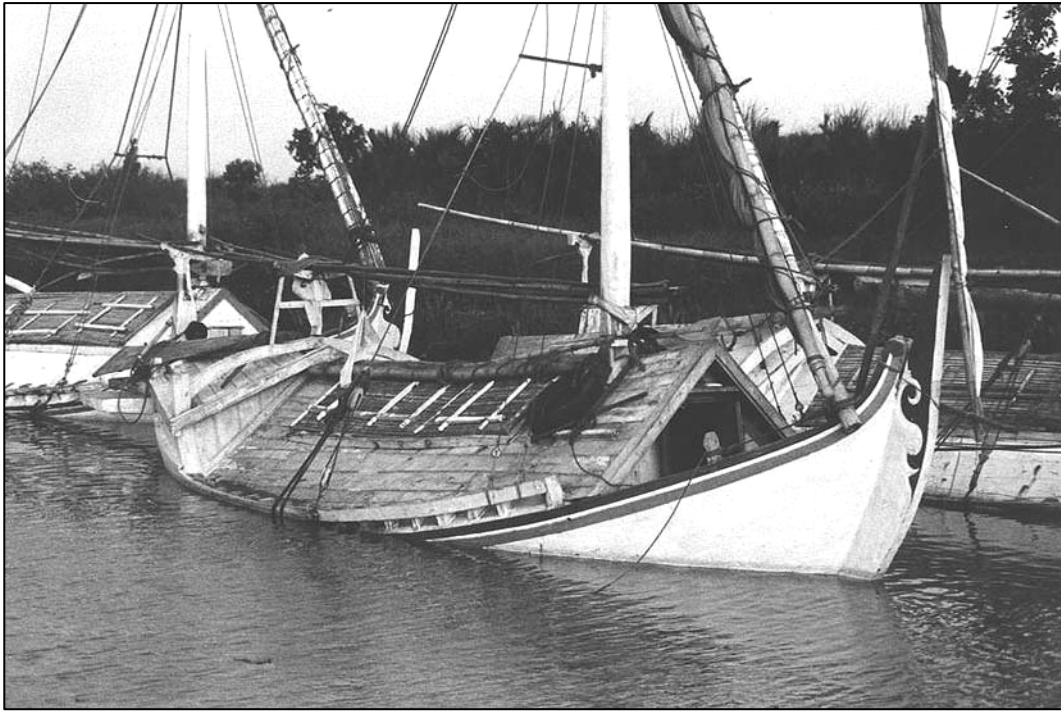


Photo 18: *Letelete* from Giligenting, laden with drums of kerosene, in a creek near the city of Pamekasan. These are seaworthy vessels.

Kalimantan was a particularly common destination for these salt-carrying perahu during the 1950s. Apart from Kalianget, Giligenting vessels often loaded salt from Bunder, in Pamekasan, and Sampang ('Sungai Rajo').²⁴ Salt remained an important cargo until the 1970s, when small modern steel bulk carriers based at Kalianget took over the long distance salt freight work.²⁵ At the present time salt is still being shipped by perahu from Kalianget to Panarukan in East Java, but the vessels doing this work are mostly from Kalianget, not Giligenting. As at Sreseh, this is now very much the poor end of the perahu transport market.

As important as salt was to the rise of the Giligenting fleet, it was far from the only major cargo line for these vessels prior to the timber boom. The *letelete* was an optimal design of small sailing cargo vessel for the Java Sea, stoutly built and with great load-carrying ability for its length and draught; and it routinely carried a wide variety of bulk goods, from sand and coral stones to crates of bottled soy sauce. For its size the type was also well-suited to carrying livestock, and two of the most important former lines of work were the shipping of cattle from Sumenep to Banjarmasin, and horses from Lombok and Sumbawa to Java. Both of these trades disappeared in the middle part of the twentieth

²⁴ Interview Pak Sum, 8/7/2003. As late as 1999 I saw an engineless perahu from Giligenting in the Blega estuary, waiting to load salt.

century. Another economic standby was the shipping of onions, again from Lombok and Sumbawa, to Kalimantan.

Sapudi. Sapudi is the largest of the islands of Sumenep, with the exception of Kangean, with an area of approximately 130 square kilometres. The population in 2000 was nearly 48,000, about three times that of Giligenting, but much more dispersed (*Kabupaten Sumenep dalam angka 2000*). There are two small towns, Gayam on the south coast and Nonggunong on the northwest, and the island is divided into two *kecamatan* of the same names. Gayam is the more important, and also the port for the ferry from Kalianget, a journey which takes four hours. Many people travelling from the mainland take a perahu from Dungkek, at the northeastern tip of Madura, since the journey is shorter; but the Dungkek perahu ferry is rather small, with only crouching headroom under the deck awning, and on arrival at Sapudi the passengers have to wade ashore on a rough beach on the western shore before catching a *pikup* (pick-up, or utility vehicle) to elsewhere on the island.

Despite being a considerable distance off the mainland, Sapudi has strong historical associations and is well known for its ancient relics. The relative remoteness of the island is a modern perception which disregards the ease with which traditional mariners were able to traverse the highway of the sea in pre-modern times. Indeed, Sapudi was a former heartland of Sumenep culture. The legendary figure Adipoday, putative father of Madura's great folk hero, Jokotole, once ruled here, and held sway over all the other islands thereabouts. So great was his influence that many locals even today refer to Sapudi as 'Poday', and until the present his grave in the old village of Nyamplong in the west of the island is regarded as a site of spiritual power, with people regularly visiting there to meditate and pray (*berziarah*). One of Adipoday's legacies is the stands of nyamplong (*calophyllum inophyllum*) trees for which the island is known; according to local tradition he encouraged the planting of these extremely useful trees (Abdurachman, 1971: 12). Apart from its edible fruit which can also be processed for oil, the branches of this tree are outstandingly useful for crooks for the framing and reinforcing of perahu, and nyamplong is the traditional choice in Madura for this purpose.²⁶ Because the wood is light and also very resistant to splitting because of its interlocked grain, it is also an exceptionally good timber for dugout canoes.

Another reputed legacy of Adipoday is the cattle-rearing culture for which Sapudi is famous. Indeed, one of Madura's best-known cultural institutions, its bull races, are widely regarded as having originated here, and the winners of the all-Madura finals have more often

²⁵ There were four of these ships, with names from East Madura: *Adirasa*, *Adipoday*, *Giligenting*, and *Sapudi*. The first two were named after two famous brothers who lived during the Majapahit period.

than not been from Sapudi (Abdurrachman, 1971: 12). There is relatively ample area in the hilly interior for the collection of fodder, and cattle-rearing is the most important income earner on the island. According to the current head of the *desa* of Gayam, many people in the interior have been so successful from cattle-rearing that they have even managed to make the pilgrimage to Mecca.²⁷ This business success is not however apparent from the houses, for the traditional Madurese values of thrift and disapproval of conspicuous consumption remain strong on Sapudi, and the ostentatious houses so common in suburban Java are not, as yet, a feature of the local cultural landscape.

The cattle industry provided a natural economic opportunity for the vessel owners of Sapudi, and the capacious and stable *letelete* was well suited to this line of work, with the orientation as much toward Kalimantan as to Java. Mainly because of the demand for the transport of cattle, business was good for Sapudi perahu owners at the start of the twentieth century. In 1895 there were 286 perahu based on Sapudi and the neighbouring island of Ra'as, and just eight years later the number had expanded by 51 percent to 440. This very significant increase may however have been due to more than simply buoyant trading conditions. The waters around the outer islands of the Sumenep archipelago were formerly a haunt of pirates, and one of the reasons cited for the strong increase in numbers of Sumenep vessels around this time was the "greater security at sea" (*Samentrekking... vervoerwezen*, 1906: 14, 20).

The range of operations for Sapudi vessels has been just as wide as for those of Giligenting, except for a lesser involvement in the Madura Strait area. Sapudi *letelete* were formerly common visitors to Singapore, and according to Piollet (1995: 90) even to Medan. In recent decades the carrying of cattle from Sapudi has declined in importance, largely because the cattle rearing industry has itself been so successfully transported to South Kalimantan by migrants from Sapudi and other parts of Madura. Many vessels from Sapudi and nearby Guwaguwa subsequently became involved in the carrying of sand around the coast of South and East Kalimantan, and they frequently took a few migrant passengers on outward voyages – although never to the same extent as did the vessels of Telaga Biru.

The Sapudi *letelete* were easily distinguishable from the Giligenting vessels by the lack of a 'doghouse' aft (Photo 19; compare with Photos 17 and 18), and were regarded as the most authentic examples of the *letelete* type. Some of the vessels built on Sapudi from the 1970s onward were very large, the largest of all *letelete*; and following motorization in the early 1980s, some of them became larger still, of a size to rival the largest Bugis vessels

²⁶ Piollet (1995: 86) notes that the timber used for this purpose on Sapudi is *bintangor*, but this is another name for the same species (see *Persyaratan keselamatan*, 2002: 30).

²⁷ Interview Imran Rasyidik, 23/1/2003.



Photo 19: Two powerful *letelete* from Sapudi, beached for maintenance at Sepulu. The stern of a small fish carrying *golekan* is in the right foreground.

at that time. However, although some vessel owners from Sapudi have been phenomenally successful, in general the Sapudi fleet has been adversely affected by changing economic circumstances during the past two decades. The smaller Sapudi operators, especially those from Nunggunong in the northwest of the island, have been less successful than the Giligenting owners in obtaining work in the timber trade. This is because they have had less access to capital for the installation of engines, and also because Sapudi entrepreneurs were primarily carriers in the timber business rather than traders, and never became involved to the same extent as did entrepreneurs from Giligenting in the actual trading of timber in the ports of Java. Consequently, the number of vessels from Sapudi engaged in the timber trade has fallen considerably in recent years.

The places presented in this chapter – Sepulu and Telaga Biru on the northwest coast, Sreseh on the south coast, and Giligenting and Sapudi in the Sumenep archipelago – are the most important places around Madura for perahu involved in the Java Sea timber trade. Each of these three areas had its own traditional perahu type, extant until almost the close of the twentieth century. These three perahu types – *golekan*, *janggolan*, and *letelete* – were quite distinct from each other, reflecting different lineages of vessel development as well as the relative isolation of each of these three areas of maritime culture from the others. In presenting these principal centres of transport perahu activity in Madura – in effect, the primary ethnographic settings for this study – I have treated these three vessels as cultural

icons for their respective areas, focussing not on technical aspects but rather the general character of the vessels. For while these traditional vessel types have now virtually disappeared, the differences in history and culture which underlay their separate courses of development are still evident in the different approaches to business of maritime entrepreneurs from the three areas. These differences will become apparent in the latter part of this thesis.

Timber as a commodity in the context of Indonesia

Until the twentieth century, the chief items of commercial interest from Kalimantan were gold and diamonds, and to a lesser extent, high value forest products such as camphor, dammar resin, and bezoar stones, rather than such a ubiquitous material as timber (Earl, 1837: 248-49, 338).¹ Even after Dutch officials determined early in the century that the forests of Kalimantan should be harvested for profit, only relatively small amounts of timber were imported to Java prior to the 1950s. The reason for this low level of interest in timber from Kalimantan was that Java still had substantial timber stands of its own, most significantly of teak (*tectona grandis*), or jati, as this timber is known in Indonesia. This tree species, which does not thrive in the moist forests of Borneo or Sumatra,² was regarded almost universally in Java as superior to all other species for the quality of its timber. By comparison, *kayu Kalimantan* – a catch-all phrase for timber from Kalimantan – was regarded as a poor substitute at best. Similarly, Sumatran timbers were regarded as inferior to teak.

The strong preference for teak was partly due to bias toward this timber on the part of the Dutch, who quickly discovered after they had become established on Java that this tree species, which existed in abundance in the central part of the island, yielded a timber quite superior for the construction of ships as well as numerous other uses. The teak stands were so extensive that early Dutch observers regarded them as virtually inexhaustible, but this view was soon proved wrong as during the seventeenth and eighteenth centuries the more accessible stands were heavily exploited by the Dutch, as well as by the Chinese. The latter were described by one Dutch observer as “avaricious bloodsuckers” of the forests, leasing whole inland villages from local rulers in order to plunder the timber resources thereabouts for their shipbuilding ventures (Raffles, I: 184-185); but the Dutch and some other Europeans were no better, and eventually resorted to the same tactics to obtain their

¹ The name Kalimantan was taken from the old capital of Matan, on the southwestern coast of the island of Borneo (*kali* means ‘small inlet or river’ in Javanese). Matan, mentioned in the *Negarakertagama* as a dependency of Majapahit, was important to the Javanese because it was a centre for trading in diamonds which came from Landak, in the interior (Schrieke, 1966: 30).

² The statement by Ross (2001: 157) that teak can be cultivated in Java and Bali because of their rich volcanic soils is misleading. Rather, teak grows best in soil with a high calcium content and a distinct wet and dry season, with the richest teak stands in Java tending to be located in areas poor for agriculture. These conditions are best met in the hilly belt of Central and East Java, and to a lesser extent, Madura and the Kangean group of islands. Teak from these hilly regions with a high limestone content is regarded as superior to that grown in both West Java and the plantation forests of the islands of Salayar, in South Sulawesi, and Muna, in Southeast Sulawesi (Peluso, 1988: 206-7; Heersink, 1999: 70, 89).

materials and labour for shipbuilding (Peluso, 1988: 41). This exploitation for shipbuilding was in addition to the annual ‘contingents’ of timber, in both log and sawn form, which had to be supplied at fixed price to the VOC, and a much larger volume of private timber shipments to Batavia. Most of this came from the northeast coast, especially Rembang, which in the second half of the eighteenth century had an export surplus of around 50,000 logs and 75,000 planks.³ The timber bound for Batavia was by this time mostly for general construction rather than shipbuilding, which was mainly taking place in Rembang. Timber had of course long been an item of steady demand, but following the establishment of the European colony in Batavia it became a boom commodity, and in terms of volume, the most important of all northeast Java’s exports (Nagtegaal, 1996: 193). It was also, for the maritime entrepreneurs of the Rembang-Lasem area, by far the major cargo item.⁴

As a result of this heavy exploitation the teak stands near the coast became severely depleted in the eighteenth century. With the exception of the Rembang forests, most former supply areas had only small trees left which were only suitable for beams and the like. For good trees the woodcutters had to work further and further inland; and with the lack of waterways in the forest areas and the hilly terrain, the transport of the logs became an ever more difficult task (Nagtegaal, 1996: 195-197). Concerned over the declining availability of good shipbuilding timber, the VOC attempted to conserve the teak forests along the Rembang coast and in 1777 closed them to private felling. Apparently insufficient heed was paid to this, because in 1796 a VOC commission recommended a complete ban on logging in the coastal forests of Jepara and Rembang, and a 50 percent reduction in output from the inland forests of Blora and Jipang, where private sector entrepreneurs, especially Chinese, were obtaining their timber. But again little heed was paid to the woodcutting ban, and ‘illicit’ logging and private shipbuilding continued apace along the northeast coast. The serious decline in the condition of the forest was certainly not just because of the activities of the Chinese, however, for no less a person than the Resident of Rembang was involved in large-scale ‘illegal’ timber extraction, enriching himself in the process (Peluso, 1990: 29; Knaap, 1996: 126; Boomgaard, 1991: 19).

The history of this early timber boom in Java is instructive in various ways with respect to the current timber boom in Kalimantan. In terms of the arrogance of the inchoate

³ Many of these logs must have been rather small, of the sort that could be used for house posts and the like, since an average shipment (one vessel) from Rembang to Batavia reportedly contained 722 ‘logs’ and 1,657 planks. The vessels used were private, and predominantly Chinese-owned. The commonest perahu type in this trade was the *gonting* (*konteng*), of a size similar to many traditional transport perahu of recent times; on average *gonting* carried an average of 636 ‘logs’ and 1,535 planks (Knaap, 1996: 117).

⁴ Significantly, the skippers in this trade were mainly based not in Batavia but rather the Rembang-Lasem area, the stronghold of indigenous shipping. The majority were Chinese, with the remainder either Javanese or free Dutch (*burger*) (Knaap, 1996: 117).

state (the VOC), its inability to stop the onslaught on the forest resource, the duplicity and avarice of its senior personnel in the forest areas, the rapidity of forest degradation, and the importance of the boom for the local (private) maritime transport industry, there are significant parallels between this early timber boom on the north coast of Java, and the post-1960s timber boom in Kalimantan. These parallels are in large part a consequence of the inherent characteristics of timber as a commodity, among which are the following. First, wood is a very common material – albeit some varieties being better than others – in both its raw (tree) and commodity (timber) states. Second, stands of trees of size suitable for commercial milling are found mainly in rather remote and sparsely populated places. Third, only relatively simple and inexpensive technology is required to both extract the raw material and to convert into a commodity, and similarly, to put it to end use. These points may seem obvious enough; but taken together they form a unique set, quite different from the commodity characteristics of say, oil, aluminium, or diamonds, and they have a significant bearing on what has happened in Kalimantan since the late 1960s. The enormity of the decline in the forests of Kalimantan has only become widely apparent in the past few years, and much dismay has been expressed, both within and outside Indonesia, over this unfortunate state of affairs and how it has come to pass. Yet if we reflect on the nature of timber as a commodity and the history of large-scale forest exploitation, there is little reason to be surprised.

Teak and 'kayu Kalimantan'

The decline in teak stands did not mean that other timber species of Java became more important. On the contrary, a 'teak mentality' developed in Java, based on more than just the excellent natural properties of that timber. The special regard of the Dutch for teak was apparent from the official classification of Java's forestlands into 'teak' and 'junglewood', with the latter term covering all species other than teak (Boomgaard, 1988: 20). Teak forest was treated as a valuable and vital resource, whereas junglewood forest was regarded as more or less expendable, with relatively few controls on felling for a long time. Clearing of land for government cultivation schemes was mainly at the expense of junglewood forests; and while there was much planting of teak during the nineteenth century, very little planting of junglewood species took place. As a result of this government concern over the teak reserves coupled with a relative lack of concern over the junglewood forests, it was the latter category which declined much more rapidly during the nineteenth century (Boomgaard, 1996: 25, 29). Reserves of junglewood were eventually allocated, but these were often in steep country, and established for hydrological reasons rather than for timber extraction (Potter, 1988: 138).

Further, because the Dutch used virtually no other timber but teak for their own houses and furniture, as well as for commercial buildings such as tobacco sheds and sugar mills, a certain prestige, and even a mystique, began to be associated with that timber. Contrary to popular opinion, teak is not an outstandingly strong wood. In strength it ranks below, for example, English and white oak, ironbark, jarrah and several other eucalypts, and quite a few other Indonesian timbers. It is very durable, but no more so than several other Indonesian woods – indeed, several are rated slightly more durable (*Persyaratan keselamatan*, 2002: 30-35).⁵ The special property of teak is rather its dimensional stability – its resistance to shrinking and warping, even when unseasoned. It is above all for this reason, coupled with its durability, that teak has been so sought after for marine work, especially for planking *above* the waterline; and it is for the same reason ideally suited for exterior joinery items such as window surrounds and doors. In the hot and humid conditions of Java, the use of inferior timbers for such constructional items soon results in problems: opening up at joints, jamming in place during wet weather, and rotting. For internal structural purposes such timbers can serve satisfactorily; but bias in favour of teak, reinforced by the example of the European masters, was too strong to allow such an objective approach. For those who could afford it or who could take it directly, teak became throughout the late colonial period increasingly the standard timber for both construction and joinery work, while junglewood timbers – a category which included most timber from the Outer Islands – remained in correspondingly low demand.⁶

For these reasons there was little commercial timber felling outside Java, with the exception of Sumatra, where Chinese-owned companies logged large amounts for export to Singapore. Many trees were also felled for use in the tin mines of Bangka and Beliton. At the start of the twentieth century numerous logging concessions in Sumatra were applied for and granted, but most never reached the production stage because of problems of transport and technology. Even by 1925 there was still little competition for the major Chinese timber merchants, who were then responsible for two-thirds of all timber being cut in Sumatra

⁵ The mystique surrounding teak continues to the present in affluent countries, which is of course one reason why the teak forest is so important as a source of foreign exchange to the Indonesian state. This mystique is particularly strong among those with little practical experience of timber, and in this respect it is of interest that most teak sold in affluent countries goes for trimming pieces, hand rails, and the like – just the sort of use where many other good quality timbers would serve equally well.

⁶ An example of a common ‘junglewood’ of Java which could well have been more widely used in the past for exterior construction purposes is memba (*azadirachta indica*), which grows fairly prolifically. Because teak has become so expensive in recent years, memba has increasingly been resorted to for house construction, with good results. It has also been found to be satisfactory for marine use, and is now often used in Labuhan and Noreh, in the *kecamatan* of Sreseh, for the building of fishing craft. In Bali, where it is called intaran, it is similarly now recognized as a first class construction timber.

(Boomgaard, 1996: 30). It is thus hardly surprising that Kalimantan, despite the vastness of its forests, was at this time much less significant than Sumatra for commercial logging. Not only were the logistical difficulties at least as bad as in Sumatra, but there was also a low proportion of marketable timber species to compete against teak.

There was a demand, however, for certain dense and extremely durable timbers from Sumatra and Kalimantan. The most important of these was ironwood (*eusideroxylon zwageri*), known in Indonesia as ulin.⁷ This timber, moderately abundant in eastern Borneo, and at one time also in South Sumatra,⁸ is considerably stronger than teak and more durable as well. It also has excellent dimensional stability, and is one of the most resistant of all timbers to attack from termites and teredo worms (marine borers).⁹ In colour it is a deep reddish brown, weathering to dark grey, and is available even now in South Kalimantan in long clean baulks up to twenty metres in length. It is the undisputed 'king' of Bornean timbers, the traditional timber of choice not only for major construction members, especially longhouse poles, but also for roofing shingles. Some other timbers were sufficiently durable for the latter purpose, but ulin has the great advantage that it cleaves cleanly due to the absence of interlocking grain, and it remains until the present virtually the only Bornean timber used for making shingles.¹⁰ Ulin was also used extensively by the Dutch for construction of their oil installations and coal mines, as well as for railway sleepers. It is also an outstanding marine timber, and suitable for any part of hull construction, including even the dowels used for edge fastening of planks.¹¹ Its qualities for marine use were however largely under-appreciated in indigenous shipping circles until relatively recently.

It was primarily the profit potential of ironwood which underlay a rash of applications by Dutch companies for logging concessions in Borneo early in the twentieth century. But the conditions proved even tougher than in Sumatra, and of a total of 35 concessions granted up to 1916, all failed. Most were undercapitalized, and thus probably speculative; but even groups with substantial capital investment soon folded. One such strongly capitalized venture was that of the Surabaya-based Seliman Hout- en

⁷ The term 'ironwood' has also been widely used in other parts of the world for dense hardwoods not related to *eusideroxylon zwageri*. For this reason the indigenous name of ulin will generally be used in this study, unless referring to an article in which 'ironwood' was used.

⁸ The formerly extensive stands of *eusideroxylon zwageri* in South Sumatra have been virtually entirely destroyed (Collins, Sayer and Whitmore, 1991: 147).

⁹ Ulin is the strongest as well as the most durable of all common commercial woods in Indonesia, and also has exceptionally high resistance to attack from termites. See Soewanda (1971: 55); Chudnoff (1980: 643); *Persyaratan Keselamatan* (2002: 35).

¹⁰ Roofing shingles in Kalimantan are made from pieces about 10 mm thick by 110 mm wide. They are not sawn to this thickness, but split from short blocks of wood. The protruding part of the shingle is cut to a point, to give the appearance in a finished roof of downward pointing triangles, much like scales on a fish.

Landexploitatie Maatschappij (Seliman Timber and Land Exploitation Company), which in 1913 set up a modern sawmill at Berau with a staff of 200 Javanese workers and even had its own steamship for the transportation of the timber to Surabaya, but by 1915 was on the verge of liquidation (Potter, 1988: 135; Lindblad, 1988: 102). It seems that all these concerns underestimated the magnitude of the difficulties involved, especially the extraction of timber from the forest. A major difficulty with ulin, along with a number of other particularly desirable species, is that it does not float, and thus cannot be 'rafted' downriver without buoyancy support. Even in the seasoned state it sinks, and is for this reason the species usually used for wooden anchors.¹²

Nevertheless the lure of profits ensured steady applications for further concessions, and the government for its part was anxious to see some positive return from this vast resource. From 1916 there was a strong temporary demand in Java for construction timber, with thousands of houses being rebuilt under a housing improvement scheme motivated by concern over plague and declining native welfare in general; and ulin was also increasingly being used as an alternative to teak for railway sleepers. But again success proved elusive: out of 44 forest concessions granted in Southeast Borneo between 1921 and 1924, none were active by the end of that decade. Little of the timber that was obtained was felled by the concession holders, who instead found it easier to rely on local Dayak workers, paying them for each tree cut on a casual procurement basis. This however proved a poor system, with the logs remaining for such a long time on the forest floor or in the rivers that many of them were badly affected by borers and rot by the time they were finally delivered, further eroding the already dubious reputation of most Bornean timbers by comparison with teak (Lindblad, 1988: 102-3; Potter, 1988: 137).¹³

Consequently, exports remained low. From an estimated 275,000 cubic metres of timber cut in South and East Borneo in 1925, only 44,523 cubic metres were exported, with

¹¹ Teak is not regarded as strong enough for this purpose. In Madura, where teak is the traditional timber for hull planking, the edge dowels securing the planks together are made from the wood of a small local tree called *pereng*.

¹² Ulin weighs over 80 lb per cubic foot in the green condition, and between 64 and 71 lb per cubic foot fully seasoned (Chudnoff, 1980: 643). (Logs to be transported from the forest would almost never be in the latter state anyway, as such a large piece would require several years to season.) The statement by Potter (1988: 129) about 'Borneo ironwood' [ulin] being 'floated down the Barito River' is thus misleading. The most likely means of 'floating' would have been by supporting the logs with a pair of large river sampan, one to each side of the log or logs, and lashed together. Where logs have been removed from an area by floating them downstream, it has in fact been common practice to avoid 'sinker' species (Collins, Sayer, and Whitmore, 1991: 46).

¹³ These logs can be presumed not to have been ulin, which is highly resistant to borers as well as being virtually rot-proof, and in any case too heavy to float (see previous note). The English observer G.W. Earl, who visited various parts of Borneo in 1834, commented on the large size of the trees, but added that the timber was not generally considered suitable for shipbuilding (implying poor durability). The major exception was of course ironwood (ulin), which grew in abundance, but was in his experience little used because of the difficulty of working it (Earl, 1971 [1837]: 228).

about 60 percent of that going to Java and the remainder to East Asian destinations. The major consumers of timber were the coal and oil industries, which also bought timber from Dayak fellers despite having their own concession areas. The difficulties of breaking away from the system of buying logs from Dayak cutters were made clear in the same year, when yet another concession venture, which was contracted to supply guaranteed quantities of ironwood for railway sleepers to Java without purchasing from Dayak cutters, failed. But apart from problems of logistics and capitalization, the market in Java was unreliable for anything else than ulin, with frequent cancellations of contracts from the Java end.¹⁴

This export trade remained small during the early stage of the Depression, with prices so low that logs were simply left on the ground, and many of those which did arrive downriver were unacceptable to the foreign market. But in 1932 a large-scale Japanese venture commenced operations near Tarakan, employing over 1,000 imported labourers – despite not even having a concession at all. Huge amounts of timber were bought from the local population, and shipped off to Japan without any customs formalities (Potter, 1988: 141; Lindblad, 1988: 104). This venture was subsequently forced by the Dutch to move to Sangkulirang, to the north of Samarinda, where it could be monitored; but the activities of the Japanese had already forced an important change in the timber regulations. Under the Timber Ordinance of 1934, all ‘wild cutting’ was prohibited, and concession holders would henceforth have to fell their trees themselves, rather than buy from Dayak cutters. The indigenous people would still be allowed to cut timber for their own consumption, however.

The Japanese concern at Sangkulirang became even bigger, employing at one stage 3,500 labourers under 200 Japanese supervisors. Although labour officials were highly critical of the working and living conditions in the camp, and the government also had misgivings about the long-term intentions of the Japanese, these misgivings were tempered by a sense of relief that this vast forest resource was finally starting to bring in some economic benefits. There were also other, smaller Japanese companies involved in logging on the east coast; and there was a Dutch firm which was operating a modern sawmill profitably on the island of Nunukan, near Tarakan. All of these major logging concerns in eastern Borneo were virtual foreign enclaves, and they all used their own or chartered ships to export their timber. Even for the trade within the archipelago, perahu were not involved, with the Dutch company at Nunukan using its own steamship to transport ironwood to Tanjung Priok (Potter, 1988: 142; Lindblad, 1988: 105-7).

¹⁴ It has been suggested that it was for this reason that entrepreneurs from the main east coast ports of Balikpapan and Samarinda preferred to sell to East Asian buyers (Potter, 1988: 138).

But despite the success of these ventures, timber output from Dutch Borneo remained modest by comparison with Java and Sumatra.¹⁵ However, the government had plans for major expansion of the timber industry in Borneo, especially in the south and southeast where exploitation had been on a relatively modest scale (Lindblad, 1988: 103). In 1941 plans were made for state managed forest exploitation based at Sampit on the Mentaya river in the south, and at Batulicin on the southeast coast opposite the island of Laut. The Sampit operation intended to concentrate on the harvesting of a softwood species, *agathis alba*, for the manufacture of plywood, with the processing taking place in Java; while at Batulicin the species targeted was to be ulin, which was plentiful in that area. But the war disrupted these plans as well as plans for exploitation – at least, by the Dutch – in the forests of the northeast. Even in 1949 production in the northeast remained low, at less than 30,000 cubic metres, perhaps a tenth of the amount achieved in the immediate pre-War years. In the south output was better, at about 90,000 cubic metres, with around half of that coming from a government-owned plywood company based at Sampit. This concern continued to operate, under the auspices of the Indonesian government, until 1962, when the state timber corporation Perum Perhutani was formed (Potter, 1988: 143-4; Boomgaard, 1996: 168).

Exploitation for foreign exchange under the New Order

Up until 1966, relatively little timber was exported from Indonesia, and for foreign timber companies it remained cheaper and easier to obtain their supplies from the Philippines or Sabah. By comparison, Kalimantan had three significant disadvantages. First, the political climate in Indonesia in the early 1960s discouraged foreign involvement in the industry (Magenda, 1991: 77). Second, infrastructure was poor, with few roads, inevitably requiring larger initial outlays on the part of the logging companies; and third, the Basic Agrarian Law of 1960 acknowledged the usufructory right of traditional forest-dwelling peoples to take what they needed from the forest, which in effect sanctioned shifting cultivation on forest land and complicated the matter of concessions.

But in 1967 the New Order government, having inherited a disastrous national economy and being aware of the wealth that had flowed into neighbouring countries through forest exploitation, determined to attract foreign investment in the timber industry. To this end it allowed generous tax concessions to foreign timber companies, lowered the royalties payable in order to undercut competition from the Philippines, and gave a clear assurance in law that indigenous usufructory rights could not stand in the way of

¹⁵ In 1941, on the eve of the Pacific War, total timber production from Borneo reached 341,000 cubic metres, with most of that coming from the northeast concessions. This compared with 796,000 cubic metres for Sumatra, and 730,000 cubic metres – of which over 90 percent was teak – for Java (Boomgaard, 1996: 149, 168).

commercial timber extraction. These measures had the desired effect, and massive foreign investment poured into the forestry sector, mostly in the province with the richest forest resources, East Kalimantan.¹⁶ Earnings from timber exports rocketed, from US 4 million in 1966, to US\$ 3.2 billion in 1973 (Ross, 2001:169). Most of this timber was in log form, with Indonesia becoming the world's major log exporter.

It was not the big companies which were initially responsible for this huge upsurge in production, however. Up until 1970 only a few foreign companies had managed to obtain concessions, since procedures for obtaining large concessions remained complicated despite the central government's resolve. On the other hand, large numbers of small concessions were given to local applicants by the regional governments, in lots from 100 hectares up to a limit of 10,000 hectares. In practice concessions were often given to political favourites, with local Banjarese businessmen and politicians working together (Magenda, 1991: 78-85). For the first three years of the boom, it was these small concession holders who dominated log production in East Kalimantan. The logs were cut and hauled manually, and floated downriver during the rainy season when the rivers were high – the so-called *banjir kap* ('log flood') system, to be sold to foreign buyers for prices well beyond the domestic market level. It was a bonanza period for local entrepreneurs large and small, and almost all the able-bodied men in forest areas were involved in some degree in this trade (Peluso, 1983: 179).

Most of the logs sent out through the *banjir kap* method were lighter hardwoods, mainly dipterocarps. Not only were these dipterocarps the most abundant of the larger tree species, but with a few notable exceptions they also had the advantage of being able to be floated, even if only freshly felled. Although these lighter hardwoods were less strong and durable than ulin and other species particularly suitable for exterior construction work, this was of little importance for the purchasing companies, as much of the timber from Kalimantan was to be used in the plywood industry.

Since ancient times woodworkers had tried to overcome the principal structural shortcomings of timber, its weakness across the grain and the difficulty of making wide panels. Prior to World War II most of these attempts had been too expensive, laborious, or lacking in durability to be of much use; but with the forced war-time development of modern glues, rotating veneer cutters, and press machinery, the age-old problem was solved. The resulting material of thin layers of wood glued together with the grain in each layer at right angles to that in the adjacent layer(s) was stronger for its weight than steel, and made wood at last available in wide thin panels.

¹⁶ Although Japan has been particularly singled out for its role in the Indonesian timber sector (Dauvergne, 1997: 85), most investment came from the Philippines, Hong Kong, and Malaysia (Ross, 2001: 168).

Traditionally, durability had always been one of the most sought-after qualities of timber, along with straightness and absence of flaws. Cheap non-durable timber had its place, but its inferiority was apparent, and nowhere more so than in the humid tropics. But for plywood, it was the lighter and less durable hardwood species that were preferred, because their veneers are relatively stable, regular in grain, and free from knots and other flaws. These qualities are particularly obvious when compared to veneers from most softwood species, especially of the fir group. But apart from physical characteristics, these logs from Kalimantan also had the great advantage that they were cheap. The more durable construction timbers remained significant, of course, as sawn timber; but it was the formerly lower demand species, with only moderately durable timber despite the size of stems and relative absence of flaws, which now came to dominate in the tropical timber industry.

A fundamental shift in timber use and demand had thus taken place in Kalimantan, with Japanese interests playing a leading role. Japan had become the world's leading producer of tropical plywood during the 1950s, relying on logs obtained from the Philippines. Much of its output had been exported to the USA, but the Japanese domestic market soon began to absorb vast amounts of this new panel-wood material for its own needs. Apart from conventional panelling and partitioning, huge amounts of plywood were used in Japan for concrete formwork, for which durability and high quality hardly mattered, since the panels were only used two or three times before being discarded (Dauvergne, 1997: 8, 176, 182).

Concentration of business interests

The small-scale involvement in the export timber trade was effectively stopped in 1970 by means of a presidential decree (Keppres 20/1970) which stipulated a minimum size for a forest concession of 50,000 hectares, and furthermore, that all logging must be carried out through mechanized operations only. The mechanization requirement was supposedly to comply with Japanese demands, so that logs would arrive in better condition, and not be weathered, checked at the ends, or attacked by borers, as apparently happened under the *banjir kap* system.¹⁷ Most significantly, the new law also transferred the issuing of forest concessions to Jakarta, thereby opening the way for the granting of major concessions to foreign companies without reference to regional governments. The foreign companies did not have everything their own way, however, since they were now barred from being concession holders in their own right, and had to take on Indonesian partners. In the event,

¹⁷ According to Burhan Magenda, the refusal of the foreign companies to buy logs brought downriver by the *banjir kap* system was a strategy intended to get the concession system centralized, and thus to get direct access to the forests more easily. He further suggests that the foreign companies

many of these partner firms had close connections with the military, as well as with political and bureaucratic elites (Gillis, 1988: 74; Ross, 2001: 176-178).¹⁸

Although profits continued to be huge, with minimal outlay and no effort on the part of military-backed firms, timber rents achieved by the state remained low. Meanwhile, silvicultural obligations, which had been introduced in 1972 in a sincere but probably over-optimistic attempt to make the industry sustainable, were rarely complied with (Gillis, 1988: 84; Dauvergne, 1997: 75; Ross, 2001: 179-180).

In 1981 the government moved to phase out the export of logs and force the development of secondary industries, especially plywood. Since 1985 there has been a total ban on the export of logs, and timber companies with no downstream processing have had to either invest in that direction or sell their logs cheaply to other firms who were involved in processing. Many local timber companies went bankrupt around this time. The foreign timber companies withdrew and their military-backed partners faded away, and the industry became dominated instead by a small number of Indonesian Chinese concerns, some with close ties to Japanese firms (Dauvergne, 1997: 87). From an army of small entrepreneurs in the *banjir kap* period the industry was now highly concentrated in elite hands, with some of the largest concession holders having close links to President Suharto; and from being the world's largest exporter of logs, Indonesia became the world's largest producer of tropical plywood. In theory this concentration on wood processing and adding value should have had some conservational benefits, since investors in processing mills naturally want to avoid problems of log supply; but in practice the industry has become over-capitalized, and the proliferation of plywood mills has placed heavier demands on the forest resource than existed even at the height of the log export boom in the late 1970s.

Increasing demand for sawn timber in Java

The Outer Islands-Java timber trade developed roughly parallel to the foreign export trade, but with little direct connection to the latter. There was not even much overlap in the supply areas for the two trades, since the export trade was dominated until around 1990 by timber from East Kalimantan, whereas the Java-bound trade from the beginning was supplied mainly from Banjarmasin in South Kalimantan, and South Sumatra and Lampung. Notwithstanding that some domestic supplies were brought by steamships, perahu were

were able to achieve this because only they had log-carrier ships at their disposal (Magenda, 1991: 80).

¹⁸ The *banjir kap* system was already a very cost efficient method of log production, and the disadvantages concerning quality (see previous note) were possibly exaggerated. Ross argues that the deliberate marginalization of the small entrepreneurs was based not so much on the need for more efficient production as the desire for political patronage arrangements (Ross, 2001, 175-178).

from early in the twentieth century the main carriers in this trade. Steam shipping had marginalized the perahu fleets and relegated them to a mainly feeder role, but following the end of World War I perahu shipping began to appear increasingly in Surabaya with loads of timber from Banjarmasin (Dick, 1987: 105). These perahu were in this respect taking a virtually vacant economic role, as timber was not a popular cargo for regular motorized shipping services, with low freight rates in turn connected to the low demand for most Bornean timber in Java.

The Banjarmasin-Surabaya route was an ideal one for perahu as during the southeast monsoon they could usually make the passage each way across the Java Sea without tacking. The same advantage also applied to the 'East Hook' ports of Pasuruan, Probolinggo, and Panarukan, which were much used by perahu. In 1921 8,700 *last* of cargo were carried from Banjarmasin to the East Hook ports, while in 1922 the total amount of cargo exported from Banjarmasin was about 14,000 *last* (Dick, 1987: 106).¹⁹ It is very probable that the greater part of this outward cargo was timber, as the only other cargo of significance from Banjarmasin was woven mats, used among other things for packing in the sugar and salt industries. But this inflow of timber from Banjarmasin at this time was insignificant compared to the annual average of 218,000 cubic metres of sawn teak timber produced in Java for the years 1920 to 1925 (Boomgaard, 1996: 149). Semarang had only low levels of timber imports, partly because it was less convenient a destination than the East Java ports for sailing vessels from Banjarmasin (or for that matter, less attractive a destination than Batavia for vessels from Sumatra), but also because of its relatively close proximity to good teak forest.

The perahu used in this East Hook trade were mainly Madurese and Mandar, with Bugis perahu more inclined to discharge their cargoes in Surabaya. But as the KPM began to target this 'trespassing' of perahu into what it saw as its own special domain by drastically slashing freight rates for timber and woven mats, the perahu trade between Banjarmasin and Surabaya shrank, and by the mid-1920s only the East Hook ports were left as significant destinations for perahu from Banjarmasin (Dick, 1987: 106).

The timber exported from Banjarmasin would have been mainly dipterocarps, especially meranti, the predominant commercial species along the Barito (Potter, 1988: 135). Unlike the situation on the east coast, ulin is not common in southern Borneo west of the Meratus range. There are several different varieties of meranti, falling into the market categories of white, light red, and dark red, with considerable differences in density.²⁰ Other

¹⁹ In its use as the equivalent of a 'manifest ton' for timber, one *last* can be roughly equated with one cubic metre (Dick, 1987: 106).

²⁰ In the United States meranti is marketed under the Philippine name of lauan. It is also sometimes misleadingly referred to as 'Philippine mahogany'.

very common commercial timber categories from the Barito-Kapuas area (and elsewhere in Borneo) are keruing (*dipterocarpus* sp.), a creamy-coloured timber of moderate strength and durability, appreciated because of its consistency and relative absence of flaws, and kapur (*dryobalanops* sp.), of similar strength and durability but with less consistency and coarser grain.²¹ None of these common timbers can compare with teak for durability and dimensional stability, however. Unlike ulin, the timbers from Banjarmasin were thus in the main regarded as ‘utility timber’, and on the market in Java were regarded as alternatives to the local ‘junglewoods’ rather than as a competitor for teak.

The market in Java for Kalimantan timber remained marginal up until the 1950s. Indeed, according to Dick, up until the mid 1950s, the demand was so weak that timber had only been carried by perahu from Banjarmasin to Surabaya in preference to sailing ‘in ballast’ (Dick, 1975a: 91). But from the start of the Japanese occupation, the teak forests of Java, which until then had been fairly well managed by the Dutch (at least from a silvicultural perspective), were plundered. The Japanese wanted the wood for fuel, especially for trains and factories; for manufacturing of crates and the like needed in the war effort; and for construction work, including 400 to 500 vessels of 150 to 250 tons apiece. At the same time the local villagers, temporarily freed from what they saw as the tyranny of the Forest Service, took much forest land for agriculture. There was probably a change at this time in their attitude toward the forest and their rights to it, encouraged by the Japanese who helped to set up new forest villages and encouraged clearing for agriculture. For the occupation years, timber and fuelwood production in Java was approximately double what it had been under Dutch management. Meanwhile, very little planting of trees was undertaken. At the end of the war, a forestry observer estimated that it would take a 30 percent reduction in the wood cut over the next thirty years just for the forest to return to its pre-war condition. Nor did this onslaught on the forest stop with the end of the occupation, for during the revolution years rampant damage continued, with much deliberate burning of forest, occupation by squatters, and looting of timber. For those who had to pay for it, teak was now becoming expensive: in 1947 it cost six times what it had under the Dutch, while the price of non-teak sawn timber had increased four-fold (Peluso, 1990: 40-43).

These steep price increases inevitably made the prospect of timber from South Kalimantan a more attractive one than it had been prior to the war. When a construction boom occurred in the mid-1950s, apparently in connection with the Asia-Africa Conference to be held in Bandung, Bugis and Makassarese perahu operators based in Surabaya and Jakarta were able to take advantage of the strong demand for timber by supplying much

²¹ Further information on the main commercial timbers of Kalimantan is provided in Appendix 5.

cheaper stock from Kalimantan and Sumatra (Dick, 1975a: 91). But it was not until the economy began to surge ahead under the New Order, with a concomitant construction boom, that timber from Kalimantan became broadly acceptable on the Java market, and increasingly to be seen as the solution to Java's forestry problems.

Although much caution is needed in interpreting port statistics on actual volumes of timber,²² port figures from the early 1970s show the domestic timber trade was booming. Outward cargo – mainly sawn timber – from the most important centre for domestic timber supply, Banjarmasin, more than doubled between 1967 and 1972 (Dick, 1975a: 83). Similarly, total imports for Java and Bali doubled between 1971 and 1973, with the volume of timber imported in 1973 in the vicinity of 700,000 cubic metres.²³ Jakarta was by far the most important receiving port, followed by Surabaya (Dick, 1975a: 94).

As substantial as this trade clearly was at that time, however, it was not enough to satisfy the New Order's forestry planners. They were anxious to increase the supply of timber for Java from the Outer Islands, to keep pace with the demands of development and a rising population, and also to relieve pressure on the teak forests of Java. At only one fifth of the price of teak in 1974,²⁴ timber imported from Kalimantan could have been expected to have an overwhelming advantage on the Java market. But so strong was the traditional bias in Java toward teak that the price advantage of imported timber was apparently not enough to sway many consumers. This was undesirable from the point of view of the government, which preferred to keep most teak sales for the export market since teak was in high demand internationally and an important earner of foreign exchange. But worse, the very high price of teak coupled with what one official document called the 'fanaticism' of the Javanese toward that timber,²⁵ resulted in an upsurge in thefts of teak from the forest. At the same time, although it was much cheaper than teak, timber imported from the Outer Islands increased greatly in price, especially on the Jakarta market, with an increase of 144 percent from 1972 to 1973. This sharp price rise made the imported timber up to twice the cost of local junglewood timber, leading to heavy demands on the latter resource with significant hydrological implications.²⁶

It was thus considered vital for the Javanese to both be weaned away from teak for non-essential purposes, and to have adequate supplies of timber from Kalimantan at a price competitive with local junglewood. While the export timber trade was important in

²² This matter is discussed in Appendix 2.

²³ 'Kondisi dan situasi pemasukan kayu ke Jawa, Madura, dan Bali', p. 6; in *Lampiran-lampiran* (1974).

²⁴ 'Kondisi dan situasi pemasukan kayu ke Jawa, Madura dan Bali', p. 7; in *Lampiran-lampiran* (1974).

²⁵ 'Unit I Perum Perhutani Jawa Tengah' (report), p. 1; in *Lampiran-lampiran* (1974).

providing additional foreign exchange – beyond that from the major export commodity, petroleum – in order to help finance development, a strong domestic timber flow was important for the actual process of development.

Wood has historically been an essential material for industrial development. In the words of the Canadian economic historian Harold Innes, “Industrialism has been poured into moulds of wood” (Innes, 1956: 250). Although it is no longer as vital a material for civilization as it once was, with its function as a fuel taken over by coal, gas and petroleum, and its role as a construction medium having been largely taken over by steel and concrete, wood is nevertheless still a very important commodity, and especially so in developing countries where alternative materials and technologies are often more expensive and inconvenient. Indeed, wood is still the main household fuel in many rural areas of Java and Madura.

The most significant use of timber during the last quarter of the twentieth century in Java and Madura has been in the construction of houses and other small buildings, such as mosques. Only crude dwellings are made entirely from wood, however, and even then the walls in such simple houses are usually panelled with woven bamboo, not planks. Houses of this type are still common in rural areas. Most recently-built houses, especially in urban areas, are constructed with brick walls on stone foundations, with the brickwork usually plastered over. Internal walls are also of brick, plastered. The plywood available locally is very flimsy, rarely as much as 6 mm in thickness, and is used for interior panelling only in very cheap and rough houses. Parquet flooring is rare, unlike in Malaysia or Thailand. Floors are generally of plaster or concrete render (often too thin, and badly cracked), or in more affluent households, ceramic tiles. Walls are often similarly panelled with ceramic tiles. Stairs are usually concrete, often with ceramic tiles; while roofs are almost always made of clay tiles. But despite this reliance on brick, tile, and concrete, a considerable amount of timber is used in house building, for roof framing, door and window framing, and doors. Such furniture as is made from wood is usually from teak, but tables are much more likely to be made of plastic or glass than wood, and plastic or steel tubular chairs are extremely common. It can thus hardly be said that the people of Java and Madura are heavy consumers of wood.²⁷

Given the generally modest standard of housing in Java and Madura at that time and the steady increase in population, it is readily understandable that New Order planners wanted to maximize the importation of timber from the Outer Islands for domestic

²⁶ ‘Kondisi dan situasi pemasukan kayu ke Jawa, Madura dan Bali’, p. 7; in *Lampiran-lampiran* (1974).

consumption in Java, Madura, and Bali. At a conference held in 1974 to discuss this issue, concern was expressed by state forestry officials that none of the timber that was already then coming into Java in considerable quantities was being supplied by forestry concession (HPH) holders. Rather, it was being supplied by either small permit holders, with permission obtained locally to take logs from lots of up to 100 hectares, or from “felling carried out by local people”.²⁸ This was not as intended by state timber supply planners. Although the initial drive to open up Kalimantan’s forest for exploitation was aimed at the export market, as a secondary goal it was intended that Kalimantan’s forests could also meet the needs of the population of Java and Bali while at the same time protecting both the environment in Java and the coffers of Perhutani and the state.²⁹ The concern at this stage was not that the timber being imported into Java might be illegally obtained, but rather that supplies were uncertain because the area available for non-HPH extraction was being steadily reduced as the central government handed out vast forestry concessions, with the aim of including virtually all of Kalimantan’s forest lands under the HPH scheme. That in itself would not have adversely affected the domestic supply; but the HPH holders were really only interested in the export market, as the prices obtainable there were much higher than on the domestic market. In some places, such as East Kalimantan, a proportion of HPH production was supposed to be reserved for local industry, but there were no such provisions to force concession holders to supply part of their harvest to the Central Indonesian market.³⁰

The transportation issue

Apart from concern over how to ensure that concession holders would supply the domestic market in Java, there was also at this time much concern expressed over the problem of transportation of timber from Kalimantan. In 1974 an estimated 80 percent of timber imported into Java was being carried by perahu. This too was regarded by forestry planners as unsatisfactory. Perahu, especially ones dependent on sail power alone, were regarded as slow and unreliable, while the perahu destination ports, especially Sunda Kelapa in Jakarta, were regularly clogged up with many vessels waiting their turn to berth. What these planners wanted was an efficient modern service. In the case of ports with a high potential for timber export and which could be entered by ships – such as Banjarmasin and Sampit –

²⁷ In the early 1970s it was estimated that annual per capita wood consumption in West Java was 0.08 m³, compared with 0.24 m³ in Malaysia, 0.5 m³ in Taiwan, and approximately 1.0 m³ in Japan. (‘Pidato Pengarahan Direktur Jenderal Kehutanan’, pp. 2-3; in *Lampiran-lampiran* [1974]).

²⁸ ‘Kondisi dan situasi pemasukan kayu ke Jawa, Madura dan Bali’, p. 5; in *Lampiran-lampiran* (1974).

²⁹ Teak sales were then Perhutani’s main source of income (Peluso, 1988: xviii).

it was hoped to use special log-carrier ships, or at least regular liner shipping (RLS) services, for transporting timber to Java; while in the case of loading ports which could not be entered by ships, the preferred method of conveyance was barges towed by tug vessels. Perahu were regarded as acceptable only for the shipping of timber from low-volume outlets.³¹

This expectation that the major timber carrying role should be undertaken by regular liner shipping was despite the fact that perahu were already meeting the demand for sawn timber in Java, as reflected in the steep increase in the volume being landed. Indeed, the Jakarta market was over-supplied at times, with meranti being ‘dumped’ for prices as low as Rp. 17,000 per cubic metre, about two-thirds of the prevailing price at the time.³² It was only in the transport of logs, as required by plywood factories, that perahu were inadequate. But that would not matter if plywood factories were located in or near supply areas, as did turn out to be the case after the swing in the late 1970s toward large-scale domestic processing.

Not only were perahu meeting the domestic demand for imported timber, they were also offering a transport service far cheaper than could be offered by modern ships. Given the concern over price and the implications for the environment in Java, the performance of perahu as the principal carriers of timber should have been welcomed by state timber planners. Clearly, the objections of these planners to reliance on perahu for timber transport were not objectively based. Rather, they reflected an attitude that Indonesia, as a newly industrializing country, should not have to depend on a ‘third-world’ maritime transport service, regardless of how economical or efficient that service might be. After all, the timber exported from Kalimantan to foreign destinations was being carried by specialist log-carriers, and during the 1930s the Dutch had been using steam shipping for the transport of ulin from the east coast of Borneo to Jakarta.

Beyond this failure to appreciate the capability and economic advantages which perahu could offer, the state timber planners also showed a poor awareness of the special problems of timber as a commodity to be transported. Because of its bulk and inconvenience in handling, timber has always been a rather unattractive cargo line for modern commercial shipping. With a stowage factor of no more than half a ton per cubic metre, a full load of timber would make poor use of a ship’s carrying and earning potential, and it normally becomes attractive to modern shipping only as a return cargo for a more lucrative outward

³⁰ ‘Kondisi dan situasi pemasukan kayu ke Jawa, Madura dan Bali’, p. 5; in *Lampiran-lampiran* (1974).

³¹ ‘Kondisi dan situasi pemasukan kayu ke Jawa, Madura dan Bali’, pp. 11, 20; in *Lampiran-lampiran* (1974).

³² ‘Perdagangan kayu rimba asal luar Jawa, dan peranan Perum Perhutani dalam distribusi di Jawa’, p. 1; in *Lampiran-lampiran* (1974).

voyage, and even then in the absence of any less profitable cargo (Dick, 1974a: 95). Apart from the poor freight rates, timber is also a slow cargo to load and unload. Planks are carried one or two at a time by individual labourers, who moreover have to traverse precarious gangplanks between vessel and quay – in marked contrast to either container handling, or looser bulk commodities such as coal or iron ore which can offer large economies of scale with highly mechanized loading facilities. On the other hand, if timber can be obtained very cheaply and sold elsewhere for a relatively very high price, as the foreign companies exploiting Southeast Asian forest resources from the 1950s onward were able to do, the high costs of modern shipping transport can easily be absorbed. But on a domestic market, or any other market where the cost of labour in the destination area is not greatly different from that prevailing in the area of loading, timber becomes a problematic cargo.

The inherent problems of shipping timber were first highlighted by Innes, in his writings about the timber trade of Canada during the nineteenth century. In the northeast of that country, where the timber industry first developed, it was the second wave of exploitation in the area, coming after fur. Fur was a highly valuable commodity, in great demand in Europe, and it was only after the fur resource became largely exhausted that commercial attention turned to timber. In contrast to fur, which was transportable by canoe and on foot, with few geographical restrictions, timber is a heavy, bulky, and inconvenient commodity to transport, and large-scale movement of it was restricted to the main river systems. This dependence on arterial river systems for timber movement has also applied in Kalimantan, of course; and as in Kalimantan, the nineteenth century Canadian loggers concentrated on low-density species which could be floated downriver, with heavier species avoided (Innes, 1956: 67).

Although light timber could be floated downriver, from there on substantial vessels were required to carry such a bulky commodity. With the timber ports being located in relatively sparsely populated areas, it was difficult for timber ships serving the Canadian northeast to get cargoes for their return passages, and many had to sail back across the Atlantic empty. In order to reduce overheads many timber ships carried salt on the return voyage, while others, ‘coffin ships’, provided cheap passage to large numbers of immigrants (Innes, 1956: 67, 242). Again, there are modern parallels with Kalimantan, with forest exploitation being coupled with extensive immigration from Central Indonesia, and in the case of perahu from Madura, some vessels engaged in the timber trade carrying spontaneous migrants on return voyages.

In their expectation that timber imports to Java should be carried by modern shipping services rather than perahu, the New Order forestry planners showed a lack of awareness of the unattractiveness of timber as a cargo for regular liner shipping. Similarly,

they failed to appreciate just why some buyers might prefer to use perahu quite apart from the lower freight rates charged by comparison with modern shipping services. In particular, the flexible time schedules of perahu are a great advantage in the timber trade, enabling them to wait as required to load timber, and with their relatively small size perahu can also be deployed to fill an order quickly if necessary. Even the second transport preference of the state timber planners, barges towed by tug vessels, was unrealistic, as sea-going tugs are vastly more expensive than perahu, even large motorized ones. A barge and tug timber carrying service was established from southern Kalimantan to Gresik in 1974. This service continues to operate until the present, carrying logs for a plywood factory in Gresik.³³ But for sawn timber, perahu shipping remains far more cost efficient.

The Indonesian Selective Logging System

These planners were also naive in other, more important, respects. They believed that the forest resources of Kalimantan could be exploited sustainably through the application of scientific forestry management principles; but their science was biased toward exploitation (Dauvergne, 2001: 33-40), and fundamentally flawed. The selective logging system used in Kalimantan (*Tebangan Pilihan Indonesia*, or TPI) is, in the words of Malcolm Gillis, “inconsistent with any sensible concept of resource conservation in a tropical forest” (Gillis, 1988: 64). The concept of sustained yield with a 35 year rotation span, originally developed for temperate forests, is too short for the much slower growing dipterocarps – if indeed it is really applicable at all in such an environment.³⁴ Moreover, concessions are normally for only twenty years, so that the holders have little interest in practising sound forest management, and many carry out further cutting after only five years from initial logging (Potter, 1991: 185; Gillis, 1991: 63, 64). The policy of charging royalties only on logs actually removed is also harmful to the resource, since it encourages loggers to take only the best stems of demand species, leading inevitably to depletion of good genetic stock.³⁵ To retain the original diversity of the forest, non-demand and inferior stems should also be taken, or at least destroyed; but the TPI system does nothing to encourage this. The policy of taking only stems 50 cm or larger in diameter at breast height also results in small harvests for a great deal of destruction, with the damage from felling and extraction

³³ Each tug tows only one barge at a time. The capacity of the barges in this service is between 700 and 1700 cubic metres, in log form.

³⁴ Even with best practice, regeneration of dipterocarps is relatively difficult, especially in areas of dense forest canopy as is typical of Kalimantan (Potter, 1991: 195, 203).

³⁵ A certain number of *pohon inti*, ‘core trees’, are supposed to be left standing to guard against this genetic depletion of demand species, and to provide for the next harvest, supposedly after 35 years. TPI guidelines specify 25 such trees per hectare. Potter (1991: 185) states that the number of *pohon inti* left standing after logging operations has generally been far less than this; but Gellert (1998:

resulting in the destruction of up to 50 percent of large stems in the vicinity (Gillis, 1988: 101; Potter, 1991: 183; Dauvergne, 2001: 41).

The commodity characteristics of wood

Apart from the flaws in their management system, the New Order forestry planners also failed to perceive the extent to which their expectations would be confounded by the characteristics of the commodity itself, and the social and even political relations of the production of timber. With the resource located in remote areas, close monitoring of felling and extraction activities is virtually impossible, while the capital and technological requirements for such exploitation is low. By comparison with the major resource of the Indonesian state, petroleum, timber was available for the picking, so to speak. This was especially so since the forest was in effect a 'frontier zone', with transmigration pockets established in production forest areas (Potter, 1991: 194). Inevitably, the timber resource attracted individuals who decided, especially when hard-pressed due to agricultural failures, to turn to illicit logging.³⁶

The same characteristics of timber as a commodity which have made logging so difficult to monitor and control have also contributed to regionalism. All four of the Kalimantan provinces have been at odds in varying degrees with Jakarta over the forest concession system and centralized control of the resource, and in recent times Central Kalimantan has openly defied national government policy on the issue of legality of timber.³⁷ In this respect too there are historical precedents in Canada, with the timber provinces having taken a strongly regional stand, in contrast to the federalism of the agricultural provinces (Innes, 256: 251) – with the latter corresponding in the Indonesian context to the provinces of Java.

The comparisons here with eastern Canada may seem somewhat remote and artificial, given the temporal and geographic distance between major exploitation of the forest resource there and in Kalimantan; but that is just the point, that such comparisons can be reasonably made despite such differences across space and time, because of the essential nature of timber as a commodity. In this respect it is pertinent to note the statement of John Clammer (1996: 94) that economic anthropology is concerned with "the role of things in structuring social and ecological relationships". In the context of timber exploitation in Kalimantan it has been 'timber barons' who have been portrayed to the outside world as the chief agents of forest destruction, with 'illegal loggers' – a term used both loosely and

243-4) suggests that this is not necessarily so, and also presents a hierarchy of equivalents which are used to satisfy the requirements for regenerative purposes.

³⁶ Again, there are parallels with the frontier zone of eastern Canada, where criminal elements became widely involved in the lumber trade during the nineteenth century (Innes, 1956: 247-8).

emotively – playing the role of lesser villains. But rarely has adequate consideration been given to the structuring role of the commodity itself. While not discounting the importance of human agency, I argue that the nature of timber as a commodity has been a significant factor in the excessive exploitation and degradation of Kalimantan's forests.

To put this in a comparative context which might seem more appropriate than eastern Canada, we can look to the other timber giants of Southeast Asia, the Philippines and East Malaysia. In both of these countries forest resources have been severely depleted due to rapacious logging, and it now seems inevitable that Kalimantan's forests will suffer the same fate. Seeking a structural explanation for this phenomenon of forest mismanagement across the region, Michael Ross (2001) argues that the Philippines, Sabah, Sarawak,³⁸ and Indonesia have all suffered from the 'resource curse', an economic malady associated with an abundance of natural resources. According to this argument, plenitude of resources tends to lull economists and state planners of countries concerned into a state of misguided optimism, so that natural resources are squandered before development of a wider economic base has taken place; while conversely, in countries poorly endowed with natural resources a deep-rooted mercantilism develops naturally, the people having nothing else but their own energy and initiative to rely upon.

In East Asia, Taiwan, South Korea, and Singapore are examples of resource-poor states with strong economic growth; and within Indonesia the Madurese are a striking example of a people whose self-reliance and spirit of enterprise has been largely impelled by an impoverishment of natural resources. But while such examples support the notion that a dearth of natural resources tends to produce a strong mercantile ethic, the converse – the phenomenon of the 'resource curse' – is a more dubious proposition. Peter Dauvergne, one of the most incisive writers on the issue of forest exploitation in Southeast Asia, is unimpressed with the inevitability of the 'curse', and instead argues for a systematic examination of the impact of corporations on natural environments together with objective consideration of the factors underlying or influencing such corporate conduct (Dauvergne, 2001: 7). But the most direct criticism of the concept of the resource 'curse' with regard to the timber industry comes from Paul Gellert, who argues that the agency of state policy makers and economic planners is constrained by various historical processes and structures, and that these processes and structures are themselves influenced by the nature of the particular export commodities which link peripheral states to the global economy. This puts a very different cast on the whole argument for the 'curse', which Gellert sums up with the

³⁷ This matter is outlined in Chapter VII.

³⁸ Since forest resource policy in Malaysia is determined at the regional level, Ross appropriately treats Sabah and Sarawak as separate states for the purpose of analysis of their forest resource economies.

statement that while it correctly appraises the economic problems associated with mineral extraction (the main area of focus for the curse argument), it disregards the “temporal and spatial specificity” of resource extractive economies, and how such economies influence the relations between states, commercial enterprises, and social classes (Gellert, 1998: 11).

In Southeast Asia, the ‘spatial specificity’ of timber – its location, relative to markets – and temporal factors associated with the spread of the global economic system and the decline of forest resources elsewhere have had a critical bearing on the manner in which the natural resource has been exploited. This, it seems to me, is a far more reasonable explanation of the phenomenon of region-wide forest mismanagement than the notion that states can be, as a consequence of some mysterious psychological effect upon their principal actors, disadvantaged by an abundance of natural resources.³⁹

As a counter to any suggestion that the mismanagement of major forest resources across the Philippines, Sabah, Sarawak, and Indonesia could be the result of cultural factors peculiar to Southeast Asia, we only need to look to Australasia. In New Zealand, the rich stands of kauri (*agathis australis*) which had formerly underpinned the forest economy had virtually disappeared altogether by the middle of the twentieth century, without any serious attempt to regenerate this slow-growing giant for commercial purposes (Salmon, 1986: 93-94). Similarly, in Western Australia the extensive forests of jarrah (*eucalyptus marginata*) were heavily logged with no attempt at regeneration, so that this superb hardwood timber – again, a particularly slow-growing species – which dominated the local forest economy has now been virtually phased out as a commercial species.

These examples could be added to, but the point that reckless exploitation of forest resources is not confined to Southeast Asia is obvious. Indeed, no country can be fairly said to have managed its natural forest resources well. A possible exception in this regard is Japan, but the relatively good management of Japan’s forests needs to be set against the enormity of that country’s ‘ecological shadow’ across the forests of Southeast Asia (Dauvergne, 1997). Wood is a theoretically infinitely renewable natural resource; yet when we consider the long and continuing history around the world of unsustainable forest exploitation and resulting degradation, especially as a result of being drawn into global economic networks, it is clear that the inherent commodity characteristics of wood have militated against sustainable management of the natural resource. Taking this into account, I suggest that the debacle of forest management in Kalimantan should not be any cause for surprise. Rather, it would have been remarkable indeed if events had proceeded along the optimistic lines that the Indonesian state forestry planners had originally envisaged.

In hindsight it is clear that the New Order state forestry planners were quite unrealistic with their expectation that Kalimantan's forests could be exploited sustainably for national profit. But as well as having little idea of the extent to which their scheme would be confounded by the characteristics of the commodity, it seems that from the start of the timber boom these state planners were out of touch with the reality of the domestic timber trade. Indeed, in 1974, by which time the Outer Islands-Java trade was well established, the Directorate of Timber Marketing in Jakarta stated that "so far, we know little about the production of timber [for the domestic market], the movement of it, and what happens to it once it has reached consumer areas".⁴⁰ This was an extraordinary admission, given that this same group of officials was supposed to be coordinating the whole domestic timber trade. But it seems that among those with a special interest in the Indonesian timber industry, these state timber planners were far from alone in their ignorance of the movement and circulation of timber within the country. For notwithstanding the widespread concern over the forest environment and the rights of forest dwelling peoples, these same basic issues of the movement and circulation in-country of timber have over the years received scant attention from academics, with economic anthropologists particularly conspicuous by their absence.⁴¹ The chapters that follow will provide some insight into the movement and circulation of timber within Indonesia from the perspective of one group of people centrally involved in this traffic: the seafarers and maritime entrepreneurs of Madura.

³⁹ One of the chief proponents of the 'curse' theory, Richard M. Auty, goes so far as to write of countries with a plethora of natural resources as being "resource-constrained" (Auty, 1991: 75, cited in Gellert, 1998: 10).

⁴⁰ 'Kondisi dan situasi pemasukan kayu ke Jawa, Madura dan Bali', p. 14; in *Lampiran-lampiran* (1974).

⁴¹ For example, the excellent annotated bibliography edited by Feretti (1997), covering works dealing with forest resource management, exploitation, and community development in Southeast Asia, contains not one mention of a study focusing on the Kalimantan-Java timber trade.

CHAPTER VI

Halcyon sailing: The Java Sea timber trade until the mid-1990s

The two main Outer Islands supply areas for the Java timber market from the 1960s onward were South Kalimantan, with the main outlet at Banjarmasin, and South Sumatra. These two places were not the richest in terms of forest resources, as the forests of East Kalimantan were more richly endowed, but most of the timber being extracted from East Kalimantan was destined for the more lucrative foreign export market. Apart from this, East Kalimantan was unattractive for sailing perahu because of the distance to Java, coupled with the fact that the wind tends to blow northward through the Makassar Strait during the dry season necessitating much tacking to windward in order to reach the Java Sea. A significant amount of timber was carried from East Kalimantan by perahu, but it went to Sulawesi rather than Java. By contrast, South Kalimantan and South Sumatra had distinct advantages for sailing perahu bound for Java.

Situated about thirty kilometres from the sea on the Martapura river, which flows into the lower Barito, Banjarmasin has always been one of the most important perahu ports of the archipelago. The trade orientation from Banjarmasin was toward Surabaya rather than Jakarta, because the passage could typically be made in both directions with the wind on the beam, enabling fast sailing and a more or less straight course on each leg. Round trip sea-time under sail was usually only about six days – little different from that for motor-powered vessels of similar size, although in practice only one trip a month was normally possible because of the time spent in port at each end.¹ A considerable amount of timber was also carried from Banjarmasin to Jakarta, but this was much less convenient since although the downwind trip to Jakarta could be done in just a few days, on the return trip the perahu had to tack along the north coast of Java as far as Madura before heading north. Despite taking advantage of the diurnal coastal weather pattern – with judicious use of the anchor in calms – the return passage alone required about three weeks (Dick, 1975a: 96). For this reason, the greater part of the timber shipped to Jakarta came not from South Kalimantan but rather from the provinces of South Sumatra – including the large islands of Beliton and Bangka, which were then part of South Sumatra province – and Jambi. Like the Banjarmasin-Surabaya route, the South Sumatra-Jakarta route is largely on a north-south axis, enabling

¹ For both motorized and sailing perahu, the time spent in port was more or less the same, usually about one week in Java and one to two weeks in Kalimantan. In either case all loading and unloading

good advantage to be taken of the southeast monsoon. It was usually necessary to tack to windward through the Bangka Strait, but the seas there are generally milder than in the Java Sea, and round trip sea times under sail were typically less than a week.

On these two principal timber routes, South Sumatra-Jakarta and Banjarmasin-Surabaya, perahu enjoyed a virtual monopoly as they could transport timber at rates well below those which modern motor ships would have charged. Small wooden motor vessels of the *Lokal* fleet were competitive with perahu; but *Lokal* services were concentrated more in the western part of the Java Sea and the Riau area, and with their higher capital investment and generally larger capacity than perahu, they were more dependent than perahu on carrying outward cargo from Jakarta. Consequently, *Lokal* vessels tended to carry timber only from the larger ports in the western archipelago, namely Palembang, Jambi, and Pontianak.

After Banjarmasin and the timber ports of the provinces of South Sumatra and Jambi, the other major supply area for the domestic timber market was Central Kalimantan. The main port for this province, Sampit, was well situated for crosswind sailing in both directions across the Java Sea, being almost directly north of Surabaya; but its approaches were inconvenient for sailing craft because it is situated about seventy kilometres up the Mentaya river. Partly for this reason and partly because there was already a good deal of outward trade from Java to Sampit carried out by motor vessels which were keen for return cargo (Dick, 1975b: 99), perahu did not play a major role in the movement of timber from Sampit prior to the 1980s, when motorization of perahu became standard. Besides Surabaya, much timber from Central Kalimantan also went to Jakarta (Dick, 1975a: 94). Central Kalimantan also supplied the greater part of Banjarmasin's timber needs, since most of South Kalimantan's timber was exported, either within Indonesia or in log form for the foreign market.²

According to Howard Dick, writing of the situation up to 1973, the timber transport trade was dominated by Bugis *pinisi*, then carrying between 100 and 200 cubic metres of timber each. The Madurese perahu were considerably smaller, with the commonest type, the *letelete*, having a typical capacity of 40 to 60 cubic metres of sawn timber. In overall terms,

is usually done by manual labour. Larger perahu loading goods in Java usually spend longer in port in Java than smaller vessels, which sail empty to Kalimantan.

² In 1973, 187,000 m³ of sawn timber was recorded as shipped from South Kalimantan to other places in Indonesia, and 542,800 m³ was exported in log form to foreign countries, mainly Japan (66 percent) and South Korea (28 percent). While Banjarmasin was the main supplier for the domestic trade, the greater part of the foreign trade from South Kalimantan was from Kota Baru, on the east coast. Because this massive export trade left not nearly enough for local consumption, an estimated 90 percent of the timber for local needs was imported from Central Kalimantan ('Perdagangan hasil hutan dalam propinsi Kalimantan Selatan', pp. 2, 4; in *Lampiran-Lampiran* [1974]). It is probable that much of this timber from Central to South Kalimantan came from the Kapuas area, which is much closer to Banjarmasin than is Sampit.

their role in the movement of timber was minor by comparison with that of the Bugis (Dick, 1975a: 96), and they were still much involved in the carrying of salt and cattle from Madura, and agricultural produce from Sumbawa or Lombok.

Some Madurese vessels, both *janggolan* and *letelete*, had however been involved in the carrying of timber from Kalimantan from the late 1960s, combining this with the transport of salt to Jakarta and other places in the western portion of the archipelago, and specializing in the transport of baulk timber or squared logs to ports in Java.³ The reason for carrying squared logs was not because of any special suitability of the Madurese perahu for such awkward cargo, as Dick (1975a: 74) has implied, but rather because such large baulks were a high demand item and so particularly suitable for small traders.⁴ The large Bugis vessels were mainly involved in the freight of sawn timber, rather than trading, and their cargoes were generally arranged by agents, in much the same way as modern shipping services are organized. In contrast, heavy square timbers were (and still are) a non-standard item, requiring direct negotiation with the supplier. The provision of such heavy squared pieces to the Java market was a particular economic niche which the Madurese perahu, being smaller than the Bugis vessels and more flexible in their operation, were able to monopolize. Large vessels make profits by virtue of their large freight capacity, but small vessels can still be profitable if they can combine trading with freight work.

It is possible that the role of the Madurese at this time may have been more significant than Dick implies. In 1974 Sunda Kelapa harbour in Jakarta, the port for the Bugis *pinisi*, was an impressive spectacle and a magnet for visitors with an interest in traditional working craft; but Dick provides no indication of the relative importance of the less accessible and less convenient harbour of Kali Baru, to the east of Tanjung Priok, where the Madurese perahu used to discharge their cargo. Certainly, by the late 1970s Kali Baru was a teeming place, with the harbour routinely jammed almost solid during the sailing season with Madurese *letelete*, timber stacked high all around the quay, and so many trucks being loaded or making their way along the narrow street that it could be difficult to get through the throng even on foot. It is probable that the amount of timber being discharged at Kali Baru then was at least as much as at Sunda Kelapa, despite the smaller size of the Madurese perahu. With his revisions of the official figures, based on extensive observations

³ Interviews, H. Rofi'eh, Dec. 1999; H. Zaini, 29/10/2002.

⁴ On the demand for baulk timber, see 'Kondisi dan situasi pemasukan kayu ke Jawa, Madura dan Bali', p. 12; in *Lampiran-lampiran* (1974).

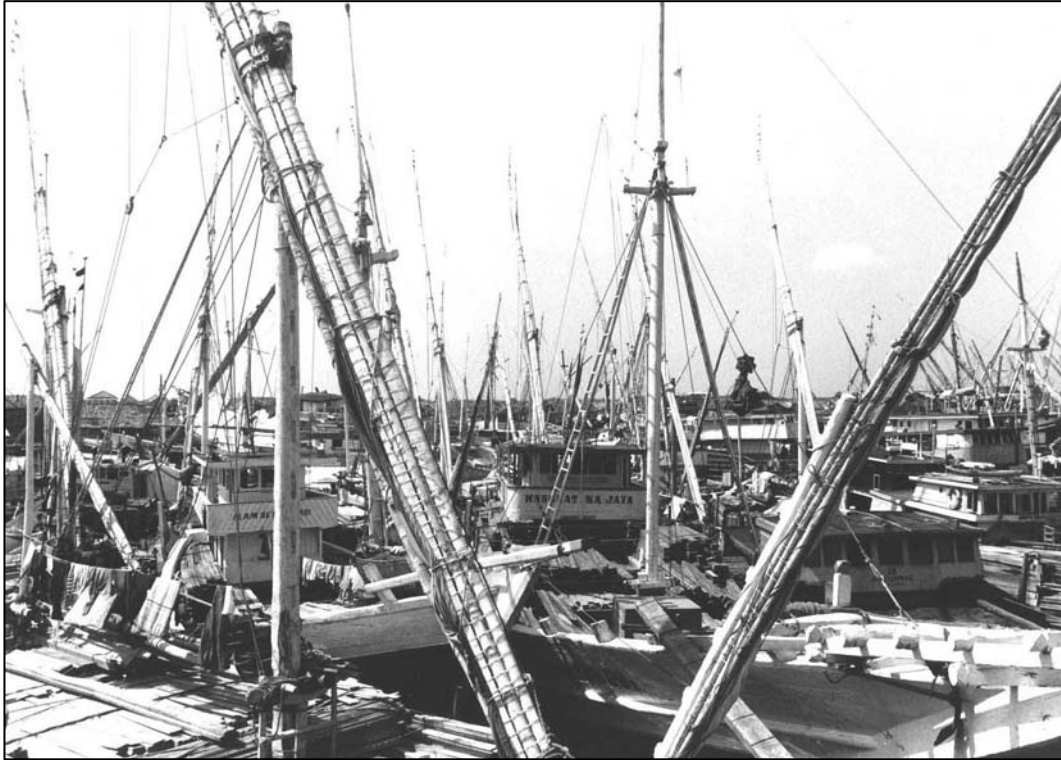
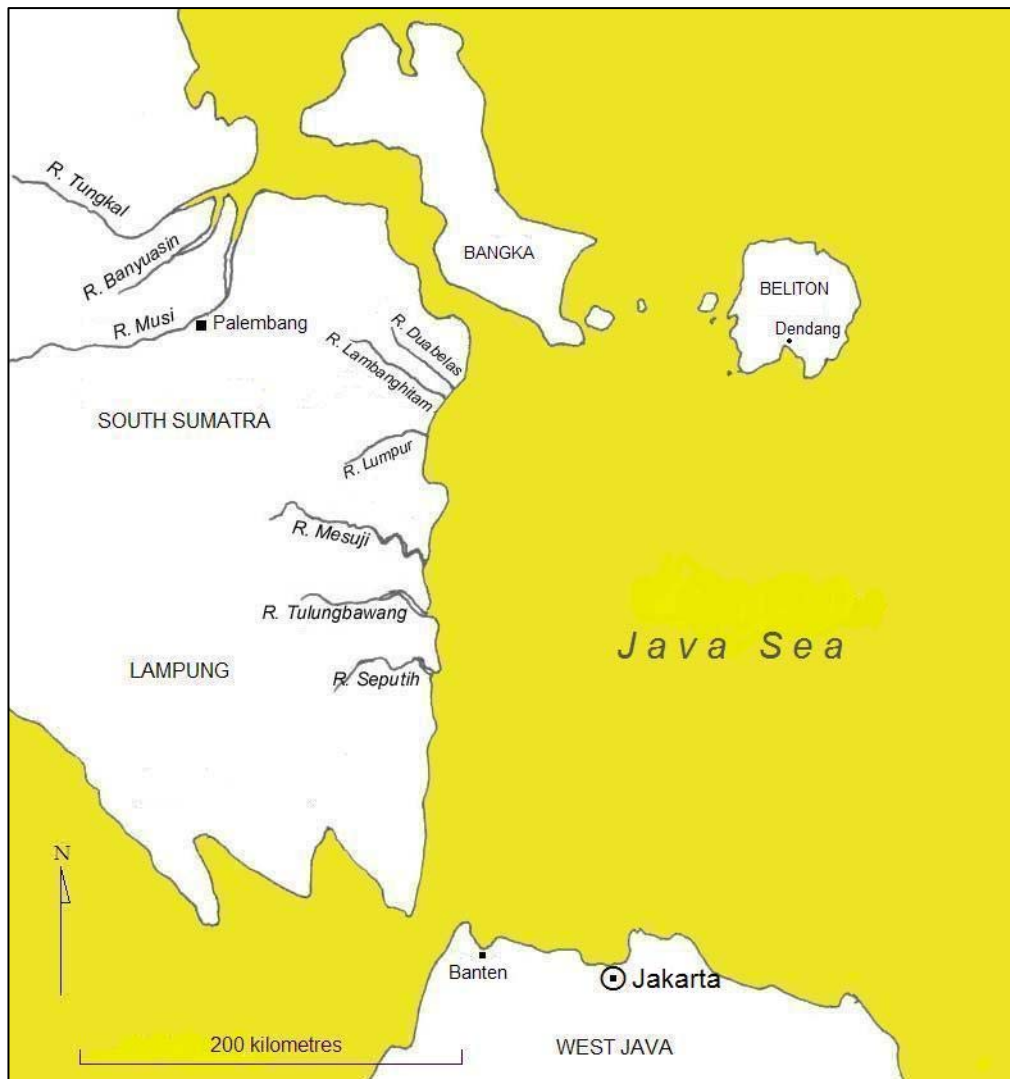


Photo 20: Kali Baru harbour, 1984. The two large motor vessels in the centre of the picture are from Riau, but all the sloping yards belong to Madurese *letelete*.

of both ports, David Hughes has shown that for 1981 the amount of timber unloaded at Kali Baru was actually much more than at Sunda Kelapa, despite the favoured attention given to the latter as a ‘showcase’ perahu harbour.⁵ Of the perahu calling at Kali Baru, the majority were Madurese, mainly *letelete* from Giligenting, with lesser numbers of the same type from Sapudi, and *janggolan* from Sreseh. That is not to suggest that nearly all the timber passing through Kali Baru was carried by Madurese perahu; in particular, large motor perahu from Riau would have carried a significant amount of the recorded total. But it does seem reasonable, from Hughes’ figures, to assume that the total amount of timber carried by Madurese perahu into Jakarta at that time would have been close to, if not more than, the total carried by the Bugis fleet discharging at Sunda Kelapa.

As at Sunda Kelapa, most of the timber unloaded at Kali Baru was sawn in standard sizes, with very little if any in baulk form. But the timber discharged at the two ports did not have identical provenances, despite some overlap. The Bugis vessels loaded their timber mainly from the major ports of the western archipelago: Palembang, Jambi, and Pontianak,

⁵ According to Hughes (1984: 94), 82 percent of all timber landed in Kali Baru was carried by perahu, with 72 percent of that discharged at Kali Baru.



Map 10: Sources of timber in Lampung and South Sumatra for Madurese perahu.

in that order of importance (Hughes, 1984: map A15). Some Madurese vessels also loaded timber in those same ports, especially Palembang; but many others obtained their cargoes in small and rather remote inlets along the Java Sea coast of Sumatra: the Duabelas, Lambanghitam, and Lumpur rivers in South Sumatra, and the Mesuji, Tulungbawang, and Seputi rivers in Lampung.⁶ In addition, Madurese *letelete* and *janggolan* also carried much timber from the islands of Beliton and Bangka to Jakarta and Cirebon. The places frequented by Madurese perahu were in most cases avoided by large Bugis craft as they were too small to offer any prospects for outward cargo from Java, and too remote for the organization of consignments by shipping agents. Perahu calling at these isolated inlets on the coast of southern Sumatra were in fact still operating in a largely traditional manner. The skippers were less likely than in earlier times to be trading on their own behalf, but they still arranged the cargoes by negotiating directly with owners of small sawmills along the

⁶ Interviews, Anwar 2/7/2003, Haji Abdul Azis, 11/7/2003, and others; also Hughes, 1984: 97.

banks of the rivers, and financial backing for the purchase of the timber was typically raised within the Madurese community. Under such an arrangement, with fairly large amounts of money involved and neither agent nor telecommunications readily available, trust was vital. For this reason skippers were usually given a substantial bonus to encourage loyalty. The main departure from tradition was that there was now little scope for outward cargoes, with the salt and livestock shipping trades largely taken over by either trucks or modern shipping. Unlike *pinisi*, which were profitable on both legs of each voyage, Madurese perahu working the timber trade in most cases sailed empty from Jakarta, but profits from the timber trade were sufficient to remain viable.

The concentration on sawn rather than baulk timber was typical of the Jakarta market, whereas baulk timber was brought mainly from Kalimantan to East or Central Java. *Janggolan* had been involved in carrying baulk timber from Kalimantan from the late 1960s until 1975, when they switched to Lampung, the southernmost province of Sumatra, to carry sawn timber from there to Kali Baru or Cirebon. Since *janggolan* were at that time still carrying salt from Sampang to Kali Baru – a trade which continued until 1985 – the move to Lampung made good economic and nautical sense. They obtained their timber there mainly in the small port of Seputi, on the Seputi river, through a Madurese merchant named Haji Ismail, a native of Giligenting.⁷ Haji Ismail's business evidently prospered, as he later moved to Kali Baru. Many Madurese from perahu communities, especially Giligenting, became small-scale timber traders in West Java around this time. Although they were outsiders, as a trading people they moved easily into this economic niche. In those days one did not need a large amount of capital to set up in the business. With Kali Baru dominated by Madurese perahu and Jakarta hungry for construction timber, the opportunities for success were good.

One example of extraordinary success at this time was that of Haji Sidik, a *janggolan* owner-skipper from the *desa* of Taman in the *kecamatan* of Sreseh. During his stays in Kali Baru harbour Haji Sidik had noticed small motor ships coming into the port with cargoes of small poles, about three metres in length with a diameter of between 30 and 60 mm. Poles like this, from saplings of mangrove, melaleuca and other species which grow in swampy areas, were much in demand for scaffolding and similar use in Jakarta's booming construction industry. They were sold to pole traders at Kali Baru, who in turn supplied construction contractors. Haji Sidik learnt from these traders that the poles came from a place called Dendang, on the south coast of Beliton, and in 1979 he determined to try his luck in this trade. With his only vessel, the optimistically named *Harta Madura* ('Wealth of Madura'), he set sail for Beliton and found his way to Dendang, an isolated place with no

⁷ Interviews, Haji Ruffi'eh, Haji Matsahri, Johori; all during December 1999.

township, at the head of a deep bay. There he made a deal with a Chinese trader to take a load of poles. He sailed with this cargo back to Kali Baru, and sold it for a handsome profit. Thereafter Haji Sidik continued to work the pole trade from Dendang to Kali Baru, and also to Cirebon. He prospered, and became by far the wealthiest person in Sreseh. From his profits he ordered one new *janggolan* after another to be built in his home area of Sreseh, until he owned fifteen large perahu – a phenomenal number in this traditional maritime field.⁸ None of his new perahu had engines, although engines were by this time standard among the Bugis fleet, and all were built to the traditional design. The largest ones were capable of carrying over 200 cubic metres of sawn timber, or 10,000 poles of around 3 metres in length and 50 mm diameter. Not surprisingly, other Sreseh owners took their vessels into the Dendang pole trade soon after Haji Sidik's success became apparent, and they too prospered, finding the profits better than from sawn timber. Faced with this intense competition, the motor vessels which had hitherto had this lucrative niche



Photo 21: *Janggolan* laden with poles. The object at the top of the stern is the port side rudder.

⁸ The number of perahu that a single person could own with a reasonable degree of control over their operation was limited by the problem of deception by skippers, who often understated profits to the owners. Writing of Bugis and Makassar vessels, Dick (1975a: 103-4) suggests six as the maximum number that could be capably managed by one man, although he had encountered cases of up to ten *pinisi* under sole ownership.



Photo 22: *Janggolan* moored together outside Kali Baru harbour.

to themselves soon withdrew, unable to match the landed price of poles carried by the cheaply operated perahu. In particular, with their higher capital outlay and operating costs, the motor vessels could not afford to wait in the ‘queue’ for their turn to load. Since then, vessels from Sreseh have dominated this trade,⁹ and until the present some vessels from Sreseh, especially from Taman, continue to ply the pole trade.

It was however vessels from Giligenting which were dominant at Kali Baru, and so profitable was their business transporting and trading timber from South Sumatra that many perahu owners from that island relocated to Kali Baru, buying or renting houses in the dense village around the harbour, in order to be able to closely monitor the operation of their vessels. Some owners from Sreseh similarly moved to either Kali Baru or Cirebon. The wealthier vessel operators typically remained in West Java throughout the sailing season, with one or two members of their family, or in some cases setting up with second wives, and returned to their home villages and primary households with the onset of the northwest monsoon. In an era when small engineless cargo vessels had been eclipsed throughout the

⁹ When I sailed to Dendang in June 1989, there were about twenty *janggolan* there waiting to load or being loaded, and no other vessels except for one small Bugis sloop. Some Butonese *lambo* were also carrying poles from Beliton to Kali Baru, but they obtained their poles from Membalong, in the southwest of Beliton (cf. Hughes, 1984: 108-129, including his Map 3, on which the position of Membalong is shown incorrectly).



Photo 23: Giligenting *letelete* with a cargo of timber, bound for Kali Baru.

rest of the world, and even within much of Indonesia, these were indeed halcyon times for the maritime entrepreneurs of Madura.

Some of the most successful Madurese perahu-owners and timber traders even established their own perahu shipping agencies, which considerably increased their opportunities for profit. Up until 1964 individual perahu skippers could deal directly with port authorities, but in that year regulations were introduced stipulating that port business for perahu could only be carried out through licensed shipping companies owning a minimum of two vessels (Dick, 1975a: 81). The intention of this regulation was to streamline port administrative procedures, as implied by the term for shipping company, *perusahaan expedisi*, ‘expediting company’.¹⁰ Although such companies are regarded for port administrative purposes as the ‘owners’ of the perahu they represent, the vessels concerned are usually owned by other individuals, who are charged a rate by the shipping companies for services rendered. To set up an expediting agency requires considerable capital as well as permission from the authorities (Directorate-General of Marine Communications) and the local Pelra office, with such permission to be given only if an apparent need exists (Hughes, 1984: 88-9). Such a need certainly existed at Kali Baru from

¹⁰ In colloquial parlance the shipping company with which a perahu is affiliated is often referred to simply as the ‘PT’ (*perusahaan terbatas*, ‘limited liability company’).

the late 1970s onward. With around 2000 calls each year to that port by Madurese perahu,¹¹ it was appropriate that there were some expediting companies there headed by or at least staffed by Madurese, just as at Sunda Kelapa the shipping companies were operated by Bugis or Makassarrese. One such Madurese perahu owner who established a *perusahaan ekspedisi* around this time and became very successful was one Haji Hosin, of Aeng Anyar, Giligenting; his company, P.T. Sendi Gita Pala, still had an office in Kali Baru in 2003. Haji Hosin settled permanently in West Java, but he still returns each year to Giligenting for the Lebaran celebration at the end of the fasting month.

The legality of timber shipments

Although the success of these Madurese perahu operators throughout the 1970s and 1980s depended in most cases entirely on the booming timber trade, virtually all of the timber which their perahu carried to Java was, in effect, illegal. The illegal nature of the perahu-borne timber trade is reflected in the great discrepancy between the official figures for timber carried by perahu and the reality. The data presented by Dick (1975a: 95) for Surabaya in 1972 indicates understatement of timber discharged in that port by close to five-sixths, and Hughes noted a similar degree of understatement of timber discharged in the two perahu ports of Jakarta in 1981. In the case of Sunda Kelapa, Hughes estimated that the amount of timber unloaded in 1981 was understated in port records by two-thirds, while for Kali Baru, the port for Madurese perahu, he found the amount of timber unloaded to be understated by nine-tenths (Hughes, 1985: 107). Neither of these authors gives any analysis of the reasons for such massive understatement of timber cargoes, except to note that understatement of perahu cargoes in general is a common practice in order to reduce the amount of various taxes payable. Dick does however present the example of copra, for which certain taxes are supposed to be paid in the port of loading. Apparently many perahu shipments of copra evaded these taxes altogether until 1972, when the Copra Board set up 'perahu posts' in East Java,¹² to charge levies upon cargoes without a certificate of payment from the port of loading. This could have been disastrous for the perahu in this trade, but in the event the impact was fairly low because the perahu typically reported only 20 percent of the cargo (Dick, 1975a: 97).

A somewhat similar situation existed in the case of timber. Commercial timber is only supposed to be obtained from areas which have been approved for logging, with the

¹¹ Hughes (1986: 106) notes a total of 2,535 calls made by sailing perahu at Kali Baru in 1981. The great majority of these engineless vessels would have been Madurese, mainly *letelete* from Giligenting.

¹² Copra-carrying perahu, mainly from Buton, discharged their cargoes in Gresik.

logging being carried out by the holder of the concession or permit. All other timber from designated forest areas, except that taken by indigenous people for their own use, is technically illegal. As the ‘owner’ of the resource, the state expects some return, in the form of a royalty, on wood taken. Because of the vastness and isolation of forest areas, however, timber extraction has always been difficult to adequately monitor and control. To get around this problem, the Dutch implemented a policy much like the pass system which they devised in the seventeenth century to control indigenous shipping. Just as every ship, no matter how small, was required to obtain a pass for every voyage – a requirement which persists until the present – so too every shipment of timber was required from 1932 onward, under the Timber Ordinance of that year, to have its own special transport pass. By focusing on the *movement* of the commodity, rather than its extraction from the forest, a relatively high degree of control of the timber trade became possible at minimal expense.

This law (*Bosverordening Java en Madoera* 1932) was aimed primarily at the movement of teak within Java and Madura, reflecting the colonial state’s preoccupation with that timber. It endures in principle in the Indonesian state through law 64 of 1957, on the basis of which regional administrations issued their own regulations requiring that all timber consignments have an official transport pass, obtainable from the district forestry office. Like its colonial predecessor, this pass applies to movement of any shipment of timber, whether by sea or land, to a place outside the administrative district of origin. The official term for this document used to be the *Surat Angkutan Kayu Olahan*, ‘transport permit for processed timber’, widely referred to as SAKO. Since 1999 the SAKO has been replaced by the *Surat Keterangan Sahnya Hasil Hutan*, ‘certificate of legality of forest produce’, or SKSHH, a blanket document which can also apply to non-timber forest products such as rattan.¹³

In order for the shipment to become legal and thus qualify for the SKSHH or its predecessor, the owner of the timber – either the logger (logging syndicate, or company) or a sawmiller who has subsequently obtained the logs – must pay the forest produce royalty fee, formerly the *Iuran Hasil Hutan* (IHH), but now the *Provisi Sumber Daya Hutan* (PSDH) ‘provision for forest resources’. This royalty fee, the major timber tax, is calculated on a per cubic metre basis. It varies across species, with high demand timbers two or three times as expensive as the most common timber, meranti. A smaller fee for reforestation purposes (*Dana Reboisasi*, or DR) is also payable at this stage. In the case with timber bound for Java it typically happens that these fees are paid for by the purchaser, although

¹³ Nevertheless many people in the trade, and especially perahu sailors, still use the term SAKO (‘sa-ko’) in conversation, rather than the abbreviation of the name for the new document (‘es-ka-es-ha-ha’).

for official purposes the seller of the timber may be deemed as the payer. The transaction with the district forestry office is usually carried out by either the seller, or in larger ports, a shipping agent, with reimbursement from the buyer in either case.

In order to prevent deceptions such as a permit for a small shipment being used for a large one, each timber transport permit includes an attachment which states the number of lengths of timber and their sizes, as well as the species, of the shipment concerned. This is not the same as the vessel's manifest, which is attached to the port clearance (*surat izin berlayar*). The manifest states simply that a cargo of timber is being carried, often without details, and has no validity for port forestry officials. Upon arrival in the destination port, the SAKO or SKSHH can be shown as required as proof that the necessary taxes have been paid, and that the cargo is therefore legal. If there is no such document, or the description on the attachment does not match the timber carried, the entire cargo may be confiscated and auctioned.¹⁴

The above description of procedures outlines how timber transportation is supposed to be controlled. But in practice, while the requirement for such the transport permit was taken seriously in Java from the 1950s onward in attempts to control pilfering of teak, it was not until recently rigorously enforced elsewhere. Indeed, so far as shipments by Madurese perahu were concerned, the relevant regulations might just as well have not existed during the first two decades of the boom in the Java Sea timber trade. In 1974 the Directorate of Timber Marketing expressed its concern over the lack of application of the law concerning the movement of timber:

The legal framework thus already exists; but of late, especially with the increase in inter-insular trade, implementation of the regulations still leaves a great deal to be desired. On any given day one can still see numerous shipments of timber without an official stamp and transportation pass, no matter that these are obligatory...¹⁵

It is possible that the timber being carried by the Bugis into Sunda Kelapa did show a modicum of compliance with these official requirements, since their cargoes were organized through forwarding agents.¹⁶ But in the case of the movement of timber by Madurese vessels, the view expressed above would seem to be an understatement of the real situation. Skippers of the relatively small Madurese perahu negotiated for cargoes directly with the

¹⁴ Information on the process of obtaining timber shipments and documentation, including onward consignment in Java, is provided in Chapter VIII. An example of an SKSHH is presented in Appendix 4.

¹⁵ 'Kondisi dan situasi pemasukan kayu ke Jawa, Madura dan Bali', p. 13; in *Lampiran-lampiran* (1974).

¹⁶ Perahu shipping companies frequently combine both expediting and forwarding functions (see Dick, 1975a: 105).

operators of small sawmills – including many operated by hand, using pit-saws – along the banks of the rivers of southern Sumatra and the southern rim of Kalimantan. Many skippers traded on their own behalf, and in the case of those buying on behalf of timber merchants, the merchants were generally also Madurese, based in West Java. According to Madurese shipping agents interviewed during fieldwork, until the present none of the timber carried by Madurese perahu has come from HPH concession areas allotted by the Central government. That does not necessarily mean that the timber has been illegally obtained, as much of it may have come from small concessions of up to 100 hectares which can be parcelled out at *kabupaten* level. But the timber imported to Java by Madurese perahu during the 1970s and 1980s was nevertheless virtually entirely illegal, in the sense that royalties were not paid and no transport permit obtained. Every former skipper, agent, or timber trader from Madura with whom I have spoken has been adamant that regulations pertaining to the SAKO were not applied until about 1990 or even later, depending on the port concerned. In their experience, there had been no SAKO requirements applying to them prior to this time.

It is primarily because perahu-carried timber was mostly illegal that there were such massive discrepancies between official figures for timber discharged in port and in reality. If the royalty fee had been paid and the SAKO obtained for each shipment, the agent concerned would presumably have entered the full amount of the cargo since there would have been firm documentary evidence of its volume. If a SAKO was acquired for only half or a third of the amount actually carried, to give a semblance of legality, then the volume of timber stated on the SAKO would have been used for port business. Possibly the Bugis vessels calling at Sunda Kelapa in 1981, with an average recorded cargo of only 99 cubic metres of timber despite an average capacity nearly three times as great (Hughes, 1986: 107), were carrying such partially legal cargoes. In the absence of a SAKO, agents routinely entered the lowest figure that was acceptable for port business purposes. It was in their interest to do this, because various local taxes are payable on each cubic metre of timber imported, significantly contributing to the landed cost.¹⁷ The volume of timber for such purposes is rarely checked physically.¹⁸ All port costs are passed on to the perahu owners anyway, but any agent whose fees are significantly higher than those of other agents in the same port would soon be deserted by his clients.

Senior forestry officials in Jakarta, by far the most important area for timber imports, not surprisingly wanted to change this state of affairs. As early as 1974, the Jakarta

¹⁷ 'Kondisi dan situasi pemasukan kayu ke Jawa, Madura dan Bali', pp. 15-16; in *Lampiran-lampiran* (1974).

¹⁸ A complete physical check of a timber shipment is rarely done because it is a very time-consuming business. Such checks are the responsibility of police and forestry officials rather than port authorities.



Photo 24: Loaded to the limit with timber, a *letelete* from Sapudi makes use of a gentle afternoon seabreeze to close with the coast of West Java.

Forestry Service expressed concern over the frequent absence of any timber transport permit for shipments from the ‘Sungai Tiga’ area, Palembang;¹⁹ permits from Bangka with no stamp from the district forestry office; and similarly, documents with no official stamp from Lampung, with one such case being prosecuted at the time.²⁰ It is not known whether the vessels concerned were Madurese or Bugis. But in any case, such prosecutions seem to have been very much the exception, perhaps to ‘set an example’ rather than to attempt to deal head-on with such widespread flouting of the law. Not only was there little serious attempt on the part of regional forestry officers to enforce the law in ports of loading, but the efforts of port forestry officers in Jakarta seem to have been too spasmodic to achieve any significant curbing of illegal timber traffic prior to the 1990s.

East Java ports

Although Kali Baru was the most important port for Madurese perahu, they were also common visitors to other ports along the entire north coast of Java. The choice of port depended largely on the source of the timber. For West Java timber came mainly from

¹⁹ Probably referring to the Musi, Banyuasin, and Tungkal estuaries, near Palembang.

²⁰ ‘Rapat kerja evaluasi pemasukan kayu ke Jawa dan Bali’ (report by Dinas Kehutanan DKI Jakarta) p. 2; in *Lampiran-lampiran* (1974).

Sumatra, for Central Java it came almost entirely from Central Kalimantan, and for East Java it came from South Kalimantan. In most ports in Java, Bugis and Madurese perahu could be seen together, with two exceptions. One was in Jakarta, with Bugis vessels going to Sunda Kelapa and Madurese vessels to Kali Baru. The other exception was in Surabaya, where Bugis *pinisi* berthed in the Kali Mas harbour (adjacent to the Madura ferry terminal, and very close to the main shipping harbour), while smaller perahu went to Gresik, about twenty kilometres to the west. But although some Madurese perahu did unload timber in Gresik, more important for them was the small inlet of Sedayu Lawas, a rather isolated place not far to the west, on the north coast. This was of old a convenient place for perahu, but with the development of land communications and transport networks it had become a backwater. By comparison with any of the other places mentioned, Sedayu Lawas hardly rated as a port at all during the middle decades of the twentieth century, with no harbourmaster or port administration, and no facilities. But it was close to a sealed road; and for small-scale Madurese perahu operators it offered distinct advantages for the landing of timber from Kalimantan. Because there was no administration, there were no port charges; shipping agents were neither available nor needed, further reducing costs; it was easy to enter, being on the open coast rather than in the narrows of the Madura Strait; it was convenient for maintenance, as vessels could dry out on the mud at low tide, while a nearby schoolyard was often used for making sails; and most importantly, being situated a long distance by road from Surabaya and off the main north coast highway,²¹ it was never visited by the port forestry officials. On the several occasions I visited Sedayu Lawas during the 1980s there were twenty to thirty perahu there, mainly *letelete* and *janggolan*, as well as a few *cemplong* from Lamongan and *beluntu* from Bawean. It was effectively a Madurese haven, with timber the sole commodity passing through. Needless to state, no one bothered with the SAKO. Most of the timber landed there was trucked away to the towns of Tuban, Lamongan, and Bojonegoro.

There was one other significant port in East Java for timber-carrying perahu: Pasuruan, to the east of Surabaya. From Kalimantan, the usual approach to Pasuruan is via the eastern end of Madura. Pasuruan was the port of preference for Mandar vessels, from the east coast of South Kalimantan, and it was also much used by vessels from Bima, operated by Bugis who had settled in that town, as well as by Madurese vessels. It is a true perahu port, since the inlet is too small and shallow to allow ships to enter. Indeed, at low

²¹ The north coast highway from Surabaya meets the coast at Tuban, about ten kilometres to the west of Sedayu Lawas. The coastal road between Tuban and Gresik is in general used only by local people, who in the 1980s still had to rely on *dokar* (pony traps) for transport along part of this road.



Map 11: The main timber ports of Java.

tide many perahu sit on the mud. Because the port serves a large town, with a densely populated hinterland, it has always been a busy place. But being only about an hour and a half by road from both Surabaya and the large inland city of Malang, Pasuruan was poised in the late 1980s to become a major conduit for timber from Kalimantan.

The decline of Madurese involvement at Kali Baru

Although completely illegal cargoes of timber remained the norm into the 1990s at Kali Baru, port forestry officials (*Polsus Kehutanan*, ‘special forestry police’) had gradually been increasing the pressure on timber traders and perahu skippers to comply with the regulations on the movement of timber. These efforts were concentrated in the major centres: Jakarta and Surabaya, and to a lesser extent, Semarang. In Jakarta pressure was most effectively brought to bear at Sunda Kelapa, perhaps because it was a government port, with entrance gates, agents leasing space for their offices and warehouses, and no resident community. In contrast, Kali Baru was densely populated, with a large fishing village alongside the harbour. There was no entrance gate and no clear separation of the community from the port proper, and shipping agents operated from houses rather than separate office buildings. It was thus a ‘community port’, and most households benefited in some way from the timber traffic there. In this situation the law was more difficult to uphold, because it was easier to organize networks of collusion and corruption, embracing shipping agents, Pelra officials, Harbourmaster’s Office (*Kesyahbandaran*) staff, and police. Nevertheless visits by special

teams (*tim*) became increasingly frequent during the mid-1990s, with heavy penalties imposed for timber without documentation, and occasional cargo confiscations. In such cases the burden fell on the buyer of the timber, who might be the owner-skipper of the vessel, but was more likely to be a local timber trader. Most of the shipping agents were also involved to some extent in trading, supplying the finance with which perahu obtained their cargoes.

The Chinese owners of the large motor vessels calling at Kali Baru had sufficient financial resources to cope with these changing circumstances, and their vessels were large enough to still produce a profit after paying the taxes and obtaining a SAKO – albeit not necessarily for the full cargo – for each voyage. But the smaller Madurese vessels lacked this economy of scale, and could not remain competitive if paying for the SAKO. At the same time, as more and more large vessels began to use Kali Baru, port costs increased significantly. Some Madurese timber traders at Kali Baru went bankrupt around this time, and many more were forced to withdraw from the timber business altogether. Many of these entrepreneurs turned, for lack of alternatives, to the small food stall (*warung*) trade. Since 1996 there have been no Madurese timber traders in Kali Baru. There are still some Madurese operating as timber traders in Jakarta, but their premises are well removed from the port area. Together with the departure of Madurese timber traders from Kali Baru, Madurese vessels also withdrew completely from that port.

Since the mid-1990s Kali Baru has been used only by small wooden motor ships owned by Chinese or Bugis entrepreneurs. These motor ships now carry on average about 800 cubic metres of timber, around ten times that of the typical traditional perahu from East Madura sailing during the late 1980s. Kali Baru is still much more important than Sunda Kelapa as a timber port, although unlike Sunda Kelapa there is still very little outward cargo.

Although this official crackdown in 1996 brought an end to the halcyon period for Madurese maritime entrepreneurs and timber traders in Jakarta, it did not have a major impact on the Madurese perahu fleet as such. Rather, the Madurese perahu which had been using Kali Baru simply relocated. The large *janggolan* in the Beliton pole trade switched to Cirebon, while the vessels from eastern Madura – *letelete*, and hybrid sloop-rigged *sepel* – moved their operational bases to Central Java, especially Tegal and Juwana. Madurese perahu had long been familiar callers to these two Central Java ports, as well as to Semarang; now there were just more of them. Forestry department officials did make the odd appearance in Tegal and Juwana, but in general things went smoothly, with once again no one bothering about paying for ‘legal’ timber.

While Tegal and Juwana are both ports of long standing, with Juwana especially important in the eighteenth century, neither possesses any special natural advantage.

Similarly, the towns with which they are associated are no larger than several other towns along the Central Java coast. Yet while other formerly important centres along this coast such as Rembang, Pekalongan, and Jepara have become insignificant except for fishing vessels, Tegal and Juwana have remained very busy, with each receiving about the same volume of timber as does the port for the urban giant of the central coast, Semarang. Both Tegal and Juwana are predominantly inward ports, but some perahu carry small amounts of outward cargo. All three ports serve deep hinterlands, including places as far from the north coast as Solo, Yogyakarta, and Cilacap.

The probable reason for the success of Tegal and Juwana is that other than Semarang, only two timber ports were needed in Central Java, one well to the west and the other well to the east, of the provincial capital. Despite its long association with indigenous shipping Rembang lacks a true port facility, leaving Juwana as the obvious choice in the eastern area. But in addition to the existing demand within Central Java, from the late 1980s onward Tegal and Juwana became busier than would otherwise have been the case because of the increasing enforcement of the timber transport regulations in Jakarta and Surabaya, and more than a little of the timber landed cheaply in Tegal and Juwana since then has been transhipped across adjacent provincial borders.

With the shift of sawn timber imports by Madurese vessels from West to Central Java, it no longer made economic sense for these vessels to obtain their timber from southern Sumatra. Supplies of timber in Central Kalimantan were in any case more plentiful; but apart from this, perahu coming from Sumatra to Central Java would face adverse winds, with much tacking involved in order to reach their destinations. In contrast, perahu could sail in either direction between Central Kalimantan and Central Java with the wind more or less on the beam, enabling brisk passages and reduced overall voyage time.

By the mid-1990s the traditional fleet had shrunk considerably. Many of the older Madurese vessels had been modified and fitted with engines, while nearly all new vessels had large aft deckhouses and engines. This did not mean that weather considerations became irrelevant, however, as in many cases the engines were a good deal too small to enable these perahu to function efficiently as pure motor vessels. This was especially the case with smaller, more poorly capitalized, perahu. This problem of insufficient engine power was compounded by the hull shape, which in many cases was rather full forward. For sailing cargo vessels such a form is not necessarily a handicap, as the greater resistance of the blunt bow is to some extent offset by greater ability to withstand the pressure of wind on the sails; but fullness forward does have a significant detrimental effect under engine power alone, especially when going directly against the wind in the open sea. But apart from considerations of passage making, having an engine did make a major difference when it

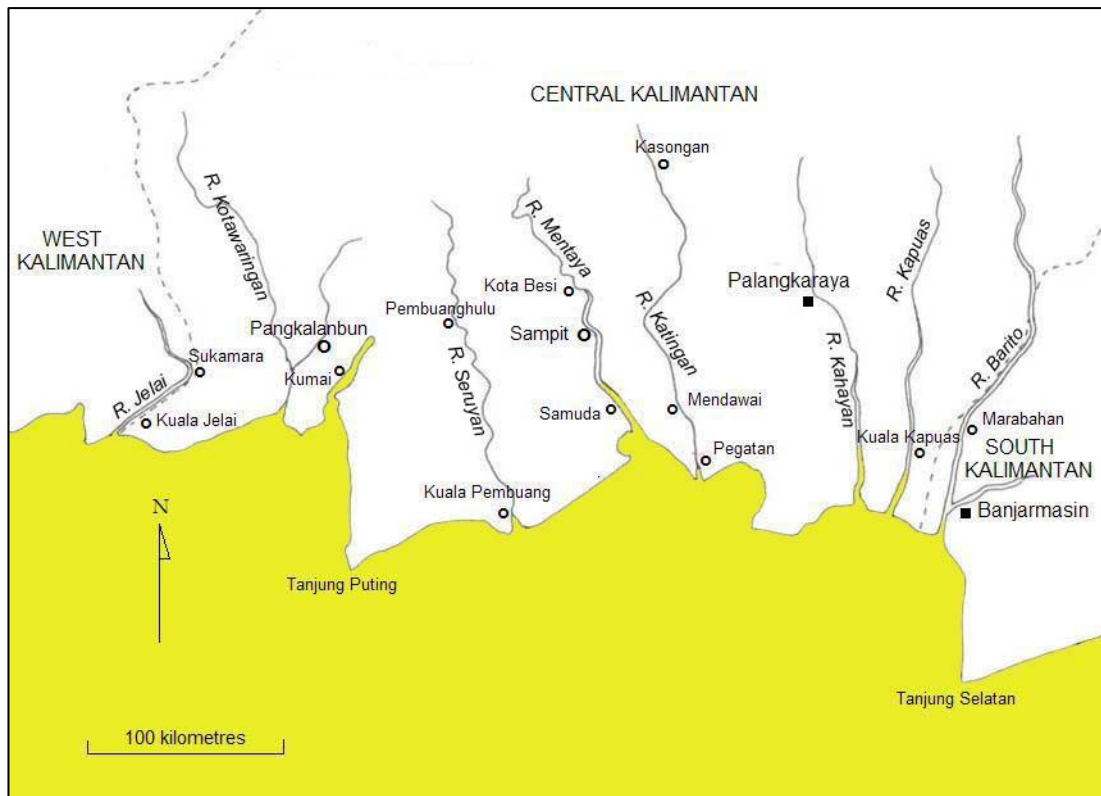
came to making way upriver in Kalimantan, and for medium to small vessels this was the most important reason for the fitting of an engine.

Central Kalimantan ports

Although much timber was imported until recently from West Kalimantan to West Java, from the 1970s onward the relatively undeveloped Central Kalimantan has been much more important for the supply of timber to West and Central Java. Within the province of Central Kalimantan, four places have been particularly significant as sources of timber: Sampit, Kumai, Sukamara, and Pegatan-Mendawai (Map 12).

Sampit. Set well inland from the coast on the west bank of the broad and picturesque Mentaya river, the town of Sampit, capital of the large *kabupaten* of Kotawaringan Timur, has for the past twenty years or so been the most important source of timber for the domestic market. Significantly, its eclipse of Banjarmasin as an outward timber port more or less coincided with the motorization of the perahu fleet. From its origins more than 200 years ago as a Chinese settlement on the opposite bank producing rattan and rubber, Sampit developed to become the largest town in Central Kalimantan, with a population prior to 2001 of about 120,000 people, of whom about 70 percent were Madurese. It is nevertheless a small place compared to Banjarmasin. In contrast with most medium-sized towns in Java, Sampit is relatively open and dispersed. It has a modern port facility where inter-island passenger ships berth, and a sprawling and rather seedy-looking waterfront with numerous jetties from which small motorboats leave for places up and down the Mentaya or around the coast. There is in addition a steady passing traffic of small river boats carrying timber or towing logs, large timber-carrying perahu, and the odd barge towed by a tug vessel. About sixteen kilometres downriver from Sampit there is an island in the river, with a sandbank extending off its southern tip; large perahu often anchor there, out of the way of the river traffic, to wait before carrying on upriver, and vessels are often careened on the adjacent sandbank for cleaning of the hull or other maintenance work.

Although one can see numerous small wooden ships moored against the bank on either side of the central waterfront area waiting to load timber from sawmills, much of the timber from the Mentaya has been taken not from Sampit itself but rather from other places along the river. For the past few years the most important place of loading for large vessels, including Bugis *pinisi*, has been Kota Besi, thirty-five kilometres upriver from Sampit. For



Map 12: The main waterways and ports of Central Kalimantan.

Madurese vessels, however, the most important place of loading has been the small town of Samuda, on the west bank close inside the river entrance. Prior to the ethnic conflict of February 2001 there was a substantial Madurese community in Samuda, with many involved in the timber business. Timber coming to Samuda was towed or carried by small river boats, called *kelotok*, as well as carried by truck. But it would be misleading to suggest that Madurese skippers went out of their way to deal with members of their own ethnic group in arranging purchases of timber. Most sawmill operators – and therefore timber suppliers – in Central Kalimantan were Banjarese, the ethnic group which has been appropriately called the ‘homo economicus’ of southern Kalimantan (Lindblad, 1988: 59). Relations between the Madurese and the Banjarese were in general good, no doubt helped by the fact that both groups were serious Muslims, and Madurese vessels regularly loaded from Banjarese-owned sawmills. But although the best supplies of timber were more likely to be obtained well upriver, such as at Kota Besi, the downriver location of Samuda had two advantages. First, being only a short distance from the open sea, it was more accessible for engineless perahu; and second, being well removed from Sampit there was less chance of a local forestry official demanding to know where a load of timber had come from, or that a SAKO be obtained.

Kumai. Although many perahu have taken timber from Kuala Pembuang, near the entrance of the Seruyan, the next river system west from the Mentaya, a much more important port for timber has been Kumai, further to the west in the *kabupaten* of Kotawaringan Barat. Kumai is effectively the port for the large town of Pangkalanbun, situated about eleven kilometres to the west. Like Sampit, Pangkalanbun had a large Madurese population, with an estimated 45,000 ethnic Madurese resident in the town up until 2001 (van Klinken, 2002: 67). For crews of visiting Madurese perahu Kumai was a particularly amenable port, for apart from the strong Madurese presence in the area the port is alongside a main road, with shops and food stalls handy, and public transport into Pangkalanbun.

Although Pangkalanbun is accessible via the Kotawaringin river, Kumai is much the better place for a port because its approaches are broad and free from hazards, and present no difficulties for engineless vessels. Large interisland passenger ships call there. Vessels from Java make for the promontory of Tanjung Puting, which has a light, and from there sail into Kumai Bay, which also has a light on the headland, with another on the other side of the river. Even with an engine, perahu do not normally enter port at night time, but these lights are a comfort for crews of vessels approaching the coast during the hours of darkness, which is often intentionally the case so that the river can be entered in the early morning.

By Central Kalimantan standards, Kotawaringan Barat has relatively good network of roads, and in recent times most timber loaded by perahu at Kumai has come not from the Kumai river, which is not a major waterway, but by truck from the hinterland. Nevertheless, large rafts of logs are also a common sight at Kumai, and in this respect the port has been identified as having strong connections to illegal timber traffic. In particular, it is close to the Tanjung Puting nature reserve, an area which has been highlighted recently for the large amounts of ramin (*Gonystylus* sp.) timber taken from there in flagrant violation of logging in national park areas. The Java-bound perahu are not involved in this illegal trade in ramin, however. Ramin is in demand on the world market as a joinery timber and for the manufacture of mouldings, dowels, picture frames and the like, for which purposes its medium-hard and consistent texture and creamy colour make it very suitable. It is however all but worthless as an exterior construction timber, with extremely low durability. Consequently it has never been in much demand in Java, but the real reason why it does not go there these days is because the price obtainable on the foreign export market is so high. Most ramin from the area is taken out illegally by barge to Sarawak, to be exported from there to other countries.²²

Sukamara. The town of Sukamara is on the Jelai river, which forms the boundary between

²² On the illegal ramin trade from the Tanjung Puting reserve, see “Gutted by greed”, *Inside Indonesia*, January-March 2000: 24; *The final cut: illegal logging in Indonesia’s orangutan parks* (EIA report, 2001); and “Para pemain yang bersekongkol”, *Tempo*, July 29 2001: 68-69.

Central and West Kalimantan near the coast. The east bank of the river falls into the administrative district of Kotawaringin Barat (although in 2002 a separate district of Sukamara was formed, with affiliation to the ‘mother-district’), while the west bank is part of West Kalimantan. This situation, with the east bank in one province and the west in the other, has at times been exploited to advantage by perahu when forestry teams have been checking for illegal timber. On such occasions, Madurese perahu have often been able to escape scrutiny by motoring over to the opposite shore, and the safety of a different jurisdiction.²³

Sukamara is almost as far upriver as Sampit, but there are sawmills scattered along the way; and some perahu, especially engineless ones, load at the town of Kuala Jelai, just inside the entrance to the river, or Kuala Jelaikiri on the western shore. There is no navigation light along this stretch of the coast, but there is one on the small island of Mangkut, about thirty miles to the west of the Jelai entrance; if vessels from Java bound for Sukamara sight the Mangkut light, they know they must veer east to reach their destination. Mangkut is known to many experienced Madurese sailors, as being situated virtually at the southwestern tip of Borneo it used to be an important ‘signpost’ for perahu laden with salt or cattle bound for Pontianak and Sambas.²⁴

Pegatan-Mendawai. The fourth major timber outlet for Central Kalimantan, Pegatan-Mendawai, is situated along the lower Katingan river (sometimes referred to as the Mendawai), to the east of the Mentaya river. The small port of Pegatan is a short way inside the entrance, but the places where timber is loaded are much further upriver, toward the town of Mendawai.²⁵ The Katingan has been the last of the main river systems of Central Kalimantan to be seriously exploited for timber, in part because it is a difficult place for engineless vessels to access. There are shoal banks extending far off shore on both sides of the river entrance, with much broken water during the southeast monsoon. It is very easy for a vessel to run aground here as the water is so shallow and murky, with the bottom not visible even in only a few inches of depth, while the channel between the shoal banks is narrow with no navigation aids other than the odd crude pole. The shorelines, including that of an island very close to the entrance, are all low-lying and heavily wooded with mangroves. Large vessels can only enter and leave at high tide. But the main difficulty for engineless perahu is not the entrance, but making way upriver. The river is wide enough for

²³ Interview, Hasanuddin, 10/7/2003.

²⁴ Interviews, Pak Yakob, 11/10/2002; Pak Sum, 8/7/2003.

²⁵ There are two places in southern Kalimantan called Pegatan. One is that referred to above on the lower Katingan river (Katingan Kuala), and the other is on the east coast of South Kalimantan, on the mainland opposite the island of Laut. Unless otherwise specified, references to Pegatan in this study apply to the former place.

tacking, even for the Madurese *letelete* and *janggolan* in which tacking is a more complex manoeuvre than with ‘modern’ rigs, but the steady current makes progress upstream difficult. Even with an engine it takes up to eight hours motoring against the current to reach the sawmill area. For this reason engineless perahu at first used to hire a tow from local motorboats at Pegatan; but this was expensive because of the distance, and some owners decided that they were better off fitting engines. In the case of perahu from Sreseh, which were engineless until the mid-1990s, the problems posed by the Katingan were a major incentive toward motorization and abandonment of the *janggolan* design. The vessel operators concerned could have sought their timber elsewhere, but there would have been little advantage in this, for with the passage of time all the easily accessible areas near the coast had become depleted of timber by comparison with further upriver. Indeed, in the mid-1990s the Katingan was reputed to have the most plentiful remaining timber supplies of any river system in southern Kalimantan.

The richness of this area for timber is reflected by the fact that some of the very largest new model *pinisi*, now once again rigged with two masts despite their large superstructure and carrying over 1000 cubic metres of timber, load their cargoes mainly from this area. The Katingan is also now the major source area for logs which are carried by barges towed by tugs – one barge per tug – to Gresik.²⁶ However, although Pegatan-Mendawai was the major source of timber for Madurese perahu discharging in East Java during the late 1990s, since the 2001 ethnic conflict few Madurese vessels have ventured there despite its relatively rich forest resources.

The rise of Pasuruan and ports on Madura

As port forestry officials and police increasingly endeavoured to enforce the law on the documentation of timber on vessels arriving in Surabaya and Gresik, those two ports became less attractive to smaller perahu. Sedayu Lawas was one alternative, but much more important was Pasuruan. Possibly because it is purely a *Pelayaran Rakyat* port, a fairly relaxed attitude has prevailed among port officials in Pasuruan. Indeed, until 2003, at least, many perahu calling at that port were claiming ludicrously low gross tonnages, shown on their operating permits (*pas kecil*),²⁷ to minimize port dues. Such fictitious gross tonnages would be unacceptable in West and Central Java. Nevertheless, it is strictly speaking not the responsibility of port administration staff – mainly, those associated with the Harbourmaster’s Office – to police the timber transport regulations. Rather, it is up to the police; but in the early 1990s the police seem to have paid little attention to the matter of

²⁶ See page 133.

²⁷ An example of such a permit is shown in Appendix 3.

timber documentation in Pasuruan, perhaps because it had not been brought to their attention by the local forestry authorities.

Because vessels discharging timber in Surabaya and Gresik had to pay royalty and other fees to obtain SAKO documentation, the price of timber there was inevitably higher than at Pasuruan. Fulfilling the SAKO requirements could add as much as a third again to the purchase price of the timber in Kalimantan. In practice, however, the SAKO was usually obtained for no more than 50 percent of the cargo, with the rest illegal. Whether the authorities were aware of how much the vessels actually carried is unclear, and given the generally low levels of compliance with the timber transport regulations prior the mid-1990s, a 50 percent level might well have been regarded as acceptable. But vessels discharging at Pasuruan and Sedayu Lawas did not have any SAKO at all for their cargoes, which gave the timber traders concerned a distinct advantage over their counterparts in Surabaya. The cost of transshipping by truck from Pasuruan to Surabaya was substantially cheaper than paying for fully legal timber through Surabaya or Gresik, and many consumers in Surabaya and especially in Malang turned to ordering their bulk supplies from timber importers in Pasuruan. As a result, Pasuruan became increasingly important as a timber port, and more and more timber traders set up in business there.

At the present time there are about fifty timber import businesses in Pasuruan, each with its own warehouse; and as might be expected for a place with so strong a Madurese presence, the majority of these traders, including many of the most successful, are Madurese. The remainder, about 30 percent, are mostly Banjarese or Bugis.²⁸ Many of these traders had started off in a small way during the 1980s when relatively little capital was needed. In the words of one informant, “in the old days, one could set up as a timber trader with as little as ten cubic metres [of timber]”.²⁹ Most of the timber warehouses are close to the port area.

A trader might set up business with only one perahu, which he may or may not own. He becomes the buyer of the timber, with the perahu simply the vehicle for conveyance. If he owns the perahu, he gains the profit from the transport – in effect, chartering the vessel to himself – as well as from the buying and selling of the timber. A very successful trader might have ten or more vessels in his ‘stable’, often all owned by other persons. As in most lines of business, capital is the constraining factor. Often it is a problem for a small trader to obtain adequate supplies of timber, because he does not have a second vessel to supply his warehouse. Rather than finance another vessel himself, he can ask around to find out if there are any perahu owners who need timber transport work. Similarly, anyone who wants to build or buy a perahu can inquire from timber traders or shipping agents as to who might

²⁸ Interviews, Haji Asrani, 5/10/2002; Haji Solechin, 29/10/2002; staff at the Pasuruan Harbourmaster’s Office, 30/10/2002.

²⁹ Interview, Abdul Latif, 17/7/2003.

want to employ his vessel for freight work. Of course, any trader agreeing must have the finance available to buy a load of timber. Cash flow is a major problem, especially for small-scale entrepreneurs. To help in this regard many timber traders do their business through a shipping agency, which makes the initial payment in return for a fee and becomes the 'buyer' in the first instance. On arrival in port the agent arranges the transport of the timber straight from the vessel to the client trader's warehouse. Mutual trust is a vital factor in these arrangements.

At about the same time as Pasuruan was emerging as a major port for the importation of timber from Kalimantan, increasing amounts of timber began to be landed in Madura. Since the 1970s there had been some traffic in timber to the north coast of Madura, purely for local consumption; but in the late 1980s some entrepreneurs at Telaga Biru began to import much larger amounts, for sale to the wider market. The Telaga Biru traders had long specialized in high quality timbers such as bangkirai or benuas (*shorea laevifolia* Endert; *shorea laevis* Ridl.), which they obtained from West Kalimantan. Bangkirai is a superb timber, dense, strong and durable with good workability despite its hardness, and much in demand for special items such as window and door frames, and any high grade construction work. With the market flooded with meranti and kapur timber, much of it of indifferent quality, the Telaga Biru traders were able to exploit the niche for high quality timber, offering it at rates below those prevailing in Java.

Unlike the case for most other small to medium perahu, this timber was a return cargo for the Telaga Biru vessels, which were already making a profit from the freight of cattle and passengers on the outward voyage. Naturally, no one bothered with SAKO documentation. As business boomed, a solid row of warehouses was built along the harbour foreshore at Telaga Biru, and lorries stacked with sawn timber became a common sight in the vehicular ferry queue at Kamal. Most buyers were from Surabaya, but some were from as far afield as Bali. The local officials at Telaga Biru, especially the staff in the Harbourmaster's Office, were aware that the large quantities of timber that were being landed and subsequently sold to Java were illegal, but no one was prepared to do anything about it. Indeed, it was no less a figure than the long-time *desa* head who was the key organizational figure in this illicit timber traffic.

Seeing the remarkable success of the timber importing business at Telaga Biru, some individuals at nearby Sepulu decided that they should become similarly involved, and make their small town a timber port. As at Telaga Biru, the key figure in this decision was the head of the local *desa*, in this case a man named Haji Komar. In contrast to the weak position of most *klebun* in Madura, Haji Komar was a strong and charismatic personage

whose word was regarded as law. He had been *klebun* of the desa of Sepulu since the mid-1970s, and throughout his long period in office no one had dared to criticize him publicly, or even to stand against him in the desa elections held every few years. The extraordinary authority and respect he commanded depended not on his wealth or education, but the force of his personality. He was a classic example of the *blater*, or *jago* (strongman, or tough) local formal leader who occasionally emerges as an exception to the rule in Madura (Muthmainnah, 1998: 26).³⁰

Such tough and uncompromising local formal leaders seem at first anomalous, especially as their personal style is far removed from the typically gentle mien of the undisputed elite of Madurese society, the *kiai*. But *blater* formal leaders can sometimes gain widespread support through their ability to maintain law and order and to foster the local economy. Moreover, despite sharp outward differences of style there is no conflict with the religious leadership, for the *kiai*, who are not supposed to engage in business dealings, are likely to depend on the economic leadership and patronage which a *blater* leader can provide; while the latter, for his part, depends upon the support of the local *kiai* for his continuing mandate (Muthmainnah, 1998: 27-28).

Such was the case with Haji Komar. With the decline of Sepulu's supremacy in the fish wholesaling trade, the local economy had become stagnant, and increasing numbers of people were leaving to try their luck in Kalimantan. This was happening, moreover, at a time when the economy in Java was surging ahead under the New Order's developmental programme. Haji Komar perceived both the need and the potential for Sepulu to get a share of the developmental cake by serving as a conduit for timber from Kalimantan. A few vessels from Sepulu were already involved in timber trading between Central Kalimantan and Pasuruan. If that timber were to be discharged in Sepulu itself, and then transhipped to Java, the whole local community could benefit. It was only one and a half day's motoring from Sepulu to the coast of southern Kalimantan, while from Sepulu it was only about three hours by road and ferry to Surabaya, where the demand for timber was nearly insatiable. With substantially lower operating costs by comparison with taking timber to Pasuruan, and no port costs or administrative problems to worry about – there then was no harbourmaster at all at Sepulu – the timber could be attractively priced to compete on the Surabaya market. Needless to say, there was no intention of bothering with SAKO documentation. The state had not looked after Sepulu; as it had always been on Madura, the people would have to look after themselves.

³⁰ The term *jago* usually implies a readiness to use physical coercion if need be, but Haji Komar never resorted to such tactics. *Jago* local leaders were often appointed in Java by the Dutch to help them achieve their ends (Nordholt, 2000), but this strategy was not effective for Madura because of the dispersed nature of the population, and the great respect commanded by the *kiai*.

As timber began to be landed in large quantities in Sepulu, there proved to be no shortage of clients from Surabaya. There was no real competition here with Telaga Biru, not that it would have mattered. The traders of Sepulu offered standard cheaper grade timbers such as meranti and kapur, as these less expensive varieties were the ones in commonest demand; to use a high-grade species such as bangkirai for internal house framing would be wasteful. These cheaper species were also the main commercial species anyway in the areas where the Sepulu vessels obtained their timber, whereas bangkirai and benuas came from much further west.

Seeing the success of perahu owners, others in the community and the hinterland were keen to invest in new vessels. These new vessels were built after the *golekan* style with the characteristic scrolled ends, but were much beamier and deeper-bodied than in the past. For planking these entrepreneurs purchased supplies of bungur (*lagerstroemia* sp.) timber from Central Kalimantan.³¹ Bungur is excellent marine timber, and because it is not widely known outside traditional maritime circles it could be purchased through special orders for not much more than the price of meranti. As demand for vessels outstripped local productivity, some entrepreneurs bought vessels from other parts of Madura. Employment opportunities boomed: in boatbuilding, crewing on perahu, unloading timber on to the beach, loading it on to trucks, and sawmill work. Once decrepit fishing boats were resurrected to carry timber from perahu to shore, food stalls sprang up on the foreshore to serve the men working on the beach, and even local *becak* operators did far brisker business than before. With the beach and surrounding groyne covered in stacks of timber, bandsaws whining in makeshift outdoor ‘sawmills’ in the residential area (to convert large pieces to smaller stock to meet the demand for local house building timber), and a steady procession of timber trucks, it was clear that Sepulu’s economy now rested not upon fish, but timber.

Significantly, only Sepulu perahu were allowed to land timber at Sepulu; vessels from Sreseh and eastern Madura were excluded, although they could call there for maintenance work. The Sepulu vessels mostly obtained their timber from Pegatan-Mendawai and other smaller rivers around the nearby Sebangau bay area. This area had only recently been opened up for large-scale timber exploitation, with plentiful supplies and new sawmills eager to sell timber, so unlike most other supply areas little time was wasted in waiting to load. With the closer proximity and rapid turnaround in their home port, the Sepulu vessels were carrying out four voyages a month, whereas vessels discharging timber in ports in Java could only manage one voyage a month. With so many vessels coming and going from Sepulu, a harbourmaster’s office was established there in 1993. This was

³¹ At Sepulu this timber is called *langoting*, a name borrowed from Dayak and Banjarese speakers. Bungur is the standard Indonesian term for the same wood.

actually a branch of the Telaga Biru office, but the traffic at Sepulu was well in excess of that at Telaga Biru.

Because turnaround time was so quick, by general agreement the vessel operators of Sepulu paid their crews in wages, with a set amount for each trip. This was a different system from that which prevailed elsewhere, which was always some sort of profit-sharing arrangement. By paying the crew in wages, the transportation cost was substantially less than it would have been otherwise, making the timber more competitive still on the Surabaya market. The payment per voyage was not high, but because of the frequency of voyages the Sepulu crews earned substantially more per month than crews on vessels from other places.

Those who owned their own vessels prospered most. Although not a seafaring man, Haji Komar invested in vessels of his own. But although he was the key figure behind Sepulu's economic boom, in terms of individual commercial success he lagged behind some other locals, especially his counterpart in the *desa* of Prancak, the neighbouring ward of Sepulu. Prancak was closer to the beach, and was more like a fishing village compared to Sepulu itself, which was more commercial, with a market and shops. The *klebun* of Prancak, Nur Habib, was the wealthiest vessel owner in the town. He had made his fortune previously in the fish wholesaling trade, and he now became the biggest operator in the timber business, with five vessels to his name. With the leadership and inspirational example of these two *desa* heads, the economic progress of Sepulu seemed assured. In stark contrast to the rest of Madura, the sense of optimism and dynamism in this small coastal town during the mid-1990s was almost palpable.

CHAPTER VII

Pancaroba: The Java Sea timber trade after 1996

The mid-1990s was a time of general prosperity for those involved in the domestic timber trade. With consumer confidence buoyant as the economy continued to grow, the demand for timber for housing and general construction work remained strong. Pasuruan was now one of the major timber ports for all Java; while on Madura the timber importing business was the economic driving force not only in Sepulu and Telaga Biru, but also in the village of Batiah, in the *kecamatan* of Banyuates about twenty-five kilometres to the east of Telaga Biru, where there was a small fleet of *golekan*, and in the village of Pagarbatu, on the south coast of Sumenep facing directly opposite the island of Giligenting. In each of these coastal communities the *desa* head played a crucial role in the running of the timber trade, and had seized the opportunity for the local economy to benefit from the timber boom. Pagarbatu in particular was a natural location for a timber importing centre, since there were so many *perahu* based at Giligenting. Most of the Giligenting vessels discharged their timber in ports in Java, but there was no shortage of vessel operators willing to carry timber for local entrepreneurs, many of whom had connections in Sampit. Pagarbatu served the timber needs for Sumenep and Pamekasan, and plenty of timber was also transferred by truck to Surabaya. But because the distance to the ferry terminal at Kamal was so much further than from the more conveniently situated Sepulu, the timber traffic through Pagarbatu was less than that passing through the north coast port. Nevertheless, this was a heady time in all four of these 'wild' timber ports, as many of the wealthier people from the local and hinterland communities, often with no previous involvement in the timber trade or maritime activities, became involved as financial backers to timber importers. The comparatively quick returns they received from these ventures were well beyond what was available from any other form of investment open to them. But throughout this period, there was little awareness in these booming *perahu* centres that this lucrative timber trade rested on a fragile and temporary base.

The halcyon period for the *perahu* operators and timber traders of Madura was in fact drawing to a close. From 1997 onward these maritime entrepreneurs would be exposed to a much less benign business climate, with occasional turbulent spells such as those which characterize the *pancaroba*, the period of change between the southeast and northwest monsoons. Three major factors would emerge in rapid succession to alter irrevocably the nature of the timber importing trade in which they had been involved for the previous three

decades: a serious official crackdown on ‘timber smuggling’; the 2001 ethnic conflict in Central Kalimantan; and the introduction of regional autonomy.

The crackdown on timber smuggling

Although the major perahu ports of Jakarta and Surabaya had been targeted over the years by the authorities, ensuring some degree of compliance with the timber transportation regulations, little concerted action had been taken outside these two major port areas. Confiscation of cargoes had occurred from time to time from at least 1992 onward, but it was only in the latter half of the decade that such decisive action began to be carried out in timber ports all along the north coast of Java. In February 1996, the Forestry Minister stated that 70 percent of the timber coming into Jakarta was illegal, and subsequently 83 vessels were detained in the capital’s perahu ports for importing undocumented cargoes.¹ But it was in 1997 that confiscations became widespread and frequent. The government had by this time been coming under increasing pressure from environmental groups, both within Indonesia and internationally, to show that it could manage the forest reserves of Kalimantan responsibly. Such pressure had been building up for years, but it gained additional impetus during 1997 because of the extensive smog caused by the burning of forest fires in Kalimantan and Sumatra. Air pollution from these fires was serious not only in western Indonesia but also in Singapore and West Malaysia, embarrassing the Indonesian government within its own region. It was difficult to monitor uncontrolled burning in the forest areas, but the government was able to show that was taking a strong hand on the environment by cracking down on illegal timber imports to Java. Throughout the latter part of the year news items appeared frequently about the apprehension of ‘timber smugglers’ (*penyelundup kayu*), as if such ‘smuggling’ (evasion of taxes on imports) was a new phenomenon. All the main timber ports of Java were targeted in operations conducted by police and forestry *tim* (‘team’) or task forces. In a joint operation carried out in early 1997 in the port of Juwana, for example, 38 perahu were reportedly found to have cargoes without proper documentation, with 10,500 cubic metres of timber being confiscated as a result.²

In another large-scale police operation, at Pasuruan, on November 18, 1997, 50 vessels were reportedly detained and had their cargoes seized. According to informants a red

¹ “The timber barons: the illegalities”, in *The politics of extinction* (EIA report, 1998).

² Interview, Abdul Latif, 17/7/2003. The informant, a shipping agent, claimed that only 4,500 cubic metres was transferred to the Forestry Department to be auctioned, with the remainder ‘disappearing’ to the benefit of corrupt officials. The same informant also purchased 1000 cubic metres at the auction, on behalf of a timber merchant in Semarang. He paid Rp 365,000 per cubic metre, a fair price on the market. However, he claimed that the storage and transport costs involved were greatly exaggerated by the officials involved, with the result that the net profit reported to the government was a mere Rp 23,000 per cubic metre, with most of the difference again allegedly going to corrupt police and forestry officials.

‘X’ was painted on the hull of each offending vessel, and the vessel passes were all seized by the police. In theory a perahu must not depart port without its pass; but in this case it seems that these essential documents were never returned. Many vessels waited in vain for up to two months for the passes to be given back, with no income generated throughout this time for their crews, whose earnings depend on the profits of each voyage. After a public protest by the perahu sailors in front of the harbourmaster’s office, one timber trading company, C.V. Madura Persadar, gave 50 kilograms of rice to each of the vessels from which the cargo had been confiscated. This may have been less magnanimous a gesture than it appears, because informants claimed that none of the vessels from which timber had been confiscated had been paid the freight which was morally due to them from the timber importers. The vessels had after all delivered the timber as required; that it had been confiscated was a separate issue. Of course, the seizure of a cargo was a calamity for the importers concerned as well as for the vessel operators. Eventually the skippers had no choice but to depart without their vessel passes, and to obtain new ones in their home areas.³ At a reported Rp 80,000 for a replacement document the cost was not prohibitive, but the inconvenience and time spent to obtain it was a considerable additional burden.

Although *Airud* (*air dan udara*, ‘water and air’) police teams continued to check vessels arriving in Pasuruan for months afterwards, there were apparently very few confiscations after the initial onslaught of November 1997. This was possibly because the police teams involved had realized that with the drastic slowdown in the timber importation business in Pasuruan,⁴ there was little opportunity to extract money in the form of *pungli* (*pungutan liar*, ‘charges with no legal basis’). Instead, the preferred method of ‘policing’ now became the imposition of a so-called *pajak laut*, ‘sea tax’, typically Rp 500,000 per vessel, in the Pasuruan roads before allowing the vessel to enter the port. According to skippers, no receipts were issued for these unofficial charges. There were also many claimed cases of partial cargo confiscation en route to Pasuruan, such as that suffered by the perahu owned by Pak Roshid, of Sreseh, in January 1998. Pak Roshid’s vessel was intercepted off Puteran Island, near Kalianget, by an *Airud* ‘speedboat’. When it was found that there was no SAKO for the cargo, the vessel was ordered into Kalianget, where eight cubic metres of timber (ten percent of the total cargo) were unloaded under police supervision. After that, the vessel was allowed to proceed. No receipt was given for the

³ In the case of the informants, new passes were obtained from Brantas, in Pamekasan. (Interviews, Haji Ansuri, Johari, Pak Roshid, and others, February 1998.)

⁴ For example, in January 1998 there were 133 vessel calls in Pasuruan, with a combined registered gross tonnage of 3,627; whereas in January 1997 there had been 344 vessel calls, with a combined registered gross tonnage of 8510 (from records of port entries, Pasuruan Harbourmaster’s Office).

timber taken,⁵ and nor did such a ‘fine’ provide any assurance of immunity from further impositions upon reaching Pasuruan.

This sustained crackdown by the authorities caused consternation among vessel owners, their financial backers, and the crews. Over two months later, when I first came to Sreseh for fieldwork, owners and sailors were still talking of little else. All seemed to be genuinely confused as to why they had been targeted, and most put it down to official corruption. Not one conceded that they were breaking the law. They knew that in theory they were required to have timber *dokumen* (‘documents’), but in practice this requirement had been so little policed in the past that it had seemed irrelevant. Although I spoke to many skippers and owners in Sreseh about the issue of timber documentation, I did not meet a single person there who could adequately explain how the documentation process was meant to work. Some skippers said that the fees required to obtain the SAKO in Kalimantan were excessive, and added that even if they did pay them, the resulting documentation would still not be accepted in Java. They were clearly aware of the risks involved in carrying undocumented timber; but as will be shown, to have complied fully with the regulations would have significantly disadvantaged them on the highly competitive Pasuruan timber market.

The impact of the *Airud* campaign in late 1997 would in any case have been severe, but it proved devastating since these confiscations took place just as the rupiah was beginning its plunge against other currencies – the onset of the *krismon*, the ‘monetary crisis’. A typical case of an entrepreneur who had been profoundly affected by this combination of events was Haji Ansuri, of Batuputih, Sreseh. This man, a highly respected individual in his community, had borrowed gold to the value of ten million rupiah, with which he planned to buy a cargo of timber from Pegatan-Mendawai. His financial backers were not people from his own small village of Batuputih, but rather friends and relatives from Sampang and Bangkalan, non-seafaring people, who had provided gold jewellery and heirlooms as investment capital.⁶ Unfortunately for the venture, when Haji Ansuri’s perahu arrived in Pasuruan the entire cargo was confiscated. As a result, he had no proceeds with which to repay his debt; but worse, as the rupiah plummeted in value against gold, his debt blew out to Rp 40 million, a huge amount in the local economy. A few individuals in the nearby village of Labuan, where there were several large perahu with a capacity of over 200 cubic metres of timber, had incurred even larger debts; one was said to owe Rp 180 million. In this traditional economic milieu there is no option of bankruptcy, and a debt remains as long as it takes to discharge it. Some entrepreneurs went off to work in Saudi Arabia, the

⁵ Interview, Pak Roshid, February 1998.

⁶ In this society private bank accounts are rarely used. Most families instead prefer to convert surplus wealth into gold, which can readily be pawned for cash as required.

only route by which they could extricate themselves from such massive debts. They could not sell their perahu, because with no one prepared to invest in the timber business there was no demand for such large vessels, and many were simply left derelict on the beach.

Quite apart from the serious financial risks involved under the new timber transport policing regime, there were at this time other factors clouding the future of small-scale maritime entrepreneurship. Consumer confidence was weak as a result of the economic crisis, which was clearly not going to be overcome in the short term; and more importantly, engines and all associated equipment were now much more expensive. Most large perahu by this time had engines, as an engine was regarded as almost essential for places like Pegatan, but the cost of fitting out a new vessel now rose dramatically. Throughout the mid-1990s building of perahu had continued steadily in Sreseh, but in early 1998 construction of new vessels there came to a standstill except for the completion of a couple begun the previous year.

Yet other than short-term contract work overseas – by no means available to everyone – there were no acceptable employment alternatives in this maritime community to shipping work. The salt trade, the former economic mainstay for the local perahu operators, by this time presented only limited opportunities. Perahu owners could still undertake timber transport work, provided they could find a trader in Pasuruan willing to employ them as carriers in the present situation; but the income from freight work alone was much less than if one traded on one's own behalf as well. Haji Ansuri lamented, 'We are a seafaring people. How else can we live, except by carrying timber?' But it was clear, from the course of the conversation at the time, that what this unlucky maritime entrepreneur really meant was trading in timber as well as carrying it.⁷

In theory, the requirement that SAKO documentation be obtained for all timber landed should not have made any significant difference. Simply, the additional cost involved in importing the timber could have, and should have, been borne by the consumers. All that was needed was for the timber traders to stand together and act for the collective interest of their group, so that none would attempt to undercut the others by selling much cheaper timber for which no SAKO had been obtained. But in the major timber port of Pasuruan, dominated by Madurese entrepreneurs, this possibility was never suggested. The Madurese have been historically remarkable for their lack of communal action (Kuntowijoyo, 1980: 526), and this case was no exception. Although the flood of timber without proper documentation had been largely stymied, there was still plenty of illegal timber getting

⁷ Interview, Haji Ansuri, February 1998.

through – in most cases with extra-legal payments in cash or timber to the *Airud* police along the way.⁸

In Sepulu, however, the traditional pattern of individual action with no concern for the collective good did not prevail. The authorities had finally become aware of the volume of timber arriving illegally in Madura, and as the main timber gateway on the island Sepulu now became the primary target for the police and forestry teams. But Haji Komar, the driving force behind the phenomenal economic growth of Sepulu, did not despair like the entrepreneurs of Sreseh. Realizing that it was vital for the Sepulu timber importers to stand together, in late 1997 he founded an association, the Persatuan Pengusaha Sepulu (Sepulu Entrepreneurs' Association). This organization had no connection with Pelra, the agency that was supposed to liaise with government groups on behalf of perahu operators. There was a Pelra office based at Telaga Biru, with Sepulu vessel operators affiliated with it, but it was totally ineffectual in the face of this grave situation these entrepreneurs now faced.⁹

Premises were made available for this association, and an administrative officer appointed. Membership was compulsory for all vessel owners based at Sepulu, with a basic levy imposed on a monthly basis, as well as a charge for each truckload of timber departing the port. Some were initially unhappy about paying this money, but no one dared defy Haji Komar, and all knew that he was acting in the collective interest. In 1997 the charge per truck was Rp 75,000. With the funds collected, pay-offs were organized, both on a retainer basis and for each shipment by truck, to a web of police and forestry officials. This system of organized graft was necessary to keep Sepulu free from the same sort of sustained law enforcement offensive that was being conducted in Pasuruan and elsewhere; but it was only possible because of Haji Komar's charisma and authority, and in none of the other timber ports in Madura was such an association of entrepreneurs formed.¹⁰

In general, 1998 was not a good year for timber transporters and traders, at least for those operating on the margins of legality, as was standard among Madurese entrepreneurs in this line of business. But gradually a pattern of partial compliance with the regulations emerged, with most entrepreneurs preferring to pay for a SAKO of between 30 and 40 percent of the actual amount of timber carried. There was an element of bluff in this, as few people not directly involved in the trade were able to make a reasonable estimate of the amount of timber carried by a perahu. The measurement certificate (*surat ukur*) is at best a vague guide in this respect, quite apart from variations in loading due to timber density and

⁸ The cost difference between fully legal timber importation and importing without documentation will be set out in Chapter VIII.

⁹ In 2003, I was informed by the manager of the head Pelra office at Sunda Kelapa that the Telaga Biru branch of the organization was no longer functional.

¹⁰ Interview, Sartori (Sepulu harbourmaster), 8/11/2002; staff at the Telaga Biru Harbourmaster's Office, 16/10/2002.

sizes. Moreover, small perahu sailing to East Java do not usually carry the measurement certificate. Instead they rely on the vessel's pass (*pas kecil*), in many cases with a greatly understated gross tonnage. But in any case, this partial compliance of 30 to 40 percent was enough to ward off such a financial catastrophe as complete confiscation of a cargo. Lesser penalties, such as the 'sea tax' which was routinely exacted by *Airud* patrols from perahu calling to Pasuruan, could be borne. The 'sea tax' was a substantial charge and perahu operators were bitter over it, but both parties were well aware that it was much cheaper than the alternative of paying for a SAKO for the entire cargo.

In addition to these ostensibly 'new' financial burdens – and nearly all perahu skippers and sailors I spoke to did seem to regard them as new – the timber market remained sluggish throughout 1998 due to a weak building industry, which was in turn linked to the woefully weak rupiah. But in 1999 consumer confidence returned, due to optimism over the possibility of a more open regime coupled with the realization that the monetary crisis was no aberration, but rather a feature of the economy which would just have to be coped with for the foreseeable future. In Pasuruan, although *Airud* police teams made their unwelcome presence felt frequently, port business boomed, with a record 405 timber-carrying vessels arriving in the harbour during the month of October.¹¹ The level of compliance with the timber transport regulations remained low, and many vessels continued to carry timber with no documentation at all. Remarkably, this was despite the passing of a new basic forestry law during the year (Law 41/ 1999), which provided for much stiffer penalties – up to ten years in prison and a fine of up to five billion rupiah – for illegal logging. Under the new forestry law the SAKO was replaced by the SKSHH, but this was essentially an administrative expedient and made no real difference to the business operations of the timber importers.

The following year saw a tougher stance taken by the authorities, however, with more confiscations of cargoes from vessels without timber documentation. In Labuan, Sreseh, several more owners of large perahu left for work in Saudi Arabia in order to cope with their debts after financial calamities of this nature. Among these hapless vessel owners from Labuan was one Haji Latif, whose perahu was caught in Semarang in 2000 with no SKSHH at all; the entire cargo was confiscated, leaving him with a debt of around Rp 60 million.¹² In another case from Sreseh during the same year, a vessel which had been launched at Batuputih just a few months earlier was intercepted off the western end of Madura by an *Airud* patrol. The perahu had loaded its cargo of 50 cubic metres of timber in Kumai, with no SKSHH, which according to the crew was standard practice for vessels

¹¹ From records of port entries, Pasuruan Harbourmaster's Office.

¹² Interview, Haji Matsahri, September 2001.

loading in Kumai then. With the owner-skipper, Haji Abdullah, of Batuputih, unable to provide the necessary documentation on demand, the vessel was ordered into Surabaya and directed to moor in an area controlled by the *Airud* police, to the west of the passenger terminal. There the vessel and crew were detained for a week. According to a crewmember, the police were abusive toward them, they were not allowed to use an outdoor bathroom/toilet facility on the wharf, and threats were even made to the skipper that the women in his household would be molested. Eventually the vessel was allowed to retain its cargo after the merchant who had financed the purchase of the timber was summoned from Pasuruan, and a sum of five million rupiah paid to the police.¹³

With incidents such as this commonplace, few people in Sreseh wanted to invest in new vessels, and the market for existing vessels was weak. On the other hand, in Sepulu, where the flow of timber continued unabated with seeming immunity from government interference, the demand for vessels remained high. Plenty of vessel construction was taking place there, with skilled men brought in from other areas to assist. This was not enough to satisfy the demand in this booming port, and some Sepulu entrepreneurs bought existing vessels from elsewhere. One who did so was Haji Komar himself, who purchased two nearly new vessels in 2000 from Sreseh. One was the perahu of the above-mentioned Haji Abdullah, for whom seafaring held less attraction after his detention at Surabaya. Although not large, it was well built from high quality timber, with laban (*vitex pubescens*) planking below the water and bungor (*lagerstroemia* sp.) above. The other vessel purchased by Haji Komar belonged to a man named Pak Mari, also of Batuputih, who had built it himself in 1999. This vessel was not however built with the best materials, being planked with meranti, which guaranteed a short working life. Both sellers made handsome profits on their deals, with Pak Mari receiving a reported Rp 125 million (about \$US 10,000); and both promptly made the pilgrimage to Mecca shortly thereafter.¹⁴

To make a high profit on a newly completed vessel is unusual anywhere. Normally the only way it is possible is to sell it to someone from a more developed economy, which was essentially the case here. The Madurese are renowned for their frugality; but in Sepulu, the economic miracle of the island, attitudes toward consumption were changing. The most conspicuous sign of such change was the building of several grand houses in the small town. These large and lavishly appointed residences, some said to cost over one billion rupiah (about \$US 100,000), represented a striking departure from the Madurese tradition of modest dwellings and abstinence from conspicuous consumption. By way of comparison, there were

¹³ Interview, Manaf, 21/9/2002.

¹⁴ At that time the cost of the pilgrimage from Indonesia was around Rp 25 million per person (about \$US 2,500), a very substantial amount of money in Indonesian terms. A typical unskilled manual worker in Java was then receiving only about Rp 10,000 (\$US 1) per day.

at that time no houses in Sreseh which could fairly be called ostentatious, and the one really wealthy resident of that area, Haji Rofi'eh, of Labuan, lived in a comfortable but simple old house which had formerly belonged to his father. It had not been renovated and did not stand out at all from the surrounding dwellings.¹⁵ On Giligenting there were a few large modern houses, the fruits of business ventures in Jakarta, but nothing in the same class as the mansions of the new rich of Sepulu; while on the island of Sapudi, where traditional attitudes toward consumption remained strong, the houses of even the wealthiest vessel owners were unassuming.¹⁶

This change in social attitudes and material conditions taking place in Sepulu as a result of wealth accumulation was also reflected in other less conspicuous ways, such as small cheap restaurants selling beer as well as food, a billiard saloon (albeit without a sign), and even the odd transvestite appearing in public.¹⁷ Further, earnings from manual and casual labour were significantly higher than elsewhere on Madura and probably anywhere else on Java outside Bandung and Jakarta. The few *becak* operators did a brisk trade, certainly managing a better living than in the much larger towns of Sampang and Bangkalan,¹⁸ while skilled boatbuilders were commanding a daily wage of Rp 70,000, compared with Rp 30,000 in Sreseh. Ordinary labourers received considerably less, but still more than in Java.¹⁹

What enabled this rising standard of living was of course the continuing flow of timber through the beach port, most of it illegal. The presence of a Harbourmaster's Office in Sepulu was no impediment to this illicit traffic. The harbourmaster was aware that the law was not being complied with and routinely noted the absence of timber documentation in his reports to his superiors, in order to protect himself, but no further action was taken. As he put it, he had no choice but to 'go along with the culture'.²⁰

¹⁵ Haji Rofi'eh is the only son of the late Haji Sidik, who acquired his wealth in the pole trade from Beliton (see pages 144-145). Haji Sidik died in about 1995, leaving his fleet of fifteen *janggolan* to his son.

¹⁶ According to Imran Rasyidik, head of the *desa* of Gayam, on Sapudi, the houses on Sapudi are a poor indicator of wealth. He added that many people who lived in simple dwellings in the interior of the large island – with cattle-rearing as their livelihood – had managed to undertake the pilgrimage to Mecca. (Interview, 23/2/2003.)

¹⁷ On the matter of beer, the consumption of this beverage is regarded in such staunchly Islamic communities as sinful, and it is not supposed to be sold. Billiard saloons are common in Java but rare in Madura, especially in such a small town. Similarly, transvestites are much less common on Madura than on Java.

¹⁸ I spoke in 2002 with two mature-aged men from Probolinggo who had come to Sepulu to take up work there operating *becak*. Both had families in Probolinggo, but no local kin. They slept in the verandah of their employer (the owner of the vehicles, who was also my host), and returned occasionally to Probolinggo to visit their families. Both said that they had come to Sepulu because they had heard that opportunities for such work there were good.

¹⁹ By way of comparison, in 2003 men unloading timber in the port of Tegal were receiving Rp 10,000 a day. This amount was typical of unskilled manual labour wage rates in the informal sector.

²⁰ Interview, Sartori, 10/2/2004.

In 2001 I spoke with Hamid Sahal, an enterprising young Madurese timber trader from Pasuruan. His business was not large, being supplied by only one perahu, and from time to time he received orders beyond the capacity of his stock. On such occasions he would obtain the necessary extra timber from Sepulu. According to Hamid, approximately one hundred trucks would leave Sepulu every night, with each truck carrying ten to sixteen cubic metres of timber. Sometimes there were many more trucks than this, he added. In addition to the cost of the timber, he had to pay the standard 'insurance money' of Rp 85,000 per truck, which went into a fund administered by the Sepulu Businessmen's Association. From this fund, he claimed, regular payments were distributed to a wide range of officials: *Airud* police, navy personnel, forestry officials, and most importantly, the ordinary police – with allocations for the different tiers of *sektor* (*kecamatan* level), *resort* (*kabupaten* level), and *wilayah* (Madura-wide level).²¹ Based on my own observations as well as information from staff in the Harbourmaster's Office, the assertion of around 100 trucks per night was a reasonable estimate, and the amount paid per truck as 'insurance' was also confirmed. All entrepreneurs paid the same amount (in 2002 it had risen to Rp 95,000). The Association was thus receiving in the vicinity of Rp 250 million per month,²² in addition to the standard monthly contribution paid by local entrepreneurs, with nearly all of this money being used to ensure the unhampered flow of timber into Sepulu and from there into Java. This facilitative process was far more thorough than merely bribing officials not to pay attention to the legal status of the timber, for each truckload would be provided with documentation to show that its load was fully legal, regardless of its prior history.

This complex system of pay-offs organized through the Association worked with marvellous efficiency, so that the entrepreneurs of Sepulu were the envy of those vessel operators and traders who had to regularly run the gauntlet of police, navy, and forestry officials at Pasuruan. But in 2001 a serious problem of a very different nature flared up, and this time the strategy of graft payments would be quite inadequate as a solution.

Ethnic conflict in Central Kalimantan

Up until 2001 serious ethnic violence involving the Madurese had occurred only in West Kalimantan, where after a long history of clashes between migrant Madurese and local Dayak people,²³ a near-provincial wide conflict broke out between these two groups in

²¹ Interview, Hamid Sahal, September 2001.

²² Based on an estimated 3,000 trucks a month, at Rp 85,000 per truck.

²³ The term 'Dayak' is widely used with reference to indigenous peoples of Borneo, as if they were part of a single ethnic group. In fact there are many different indigenous ethnic groups in Borneo,

1997. The epicentre of this conflict, at the time the worst episode of ethnic violence in the history of the Republic, was in the *kabupaten* of Sambas where Madurese migrants were especially numerous. Two years later major ethnic violence again erupted in Sambas, with this time the local Malays as well as the Dayaks turning against the Madurese.

The ethnic violence which erupted in Sampit in February 2001 was the latest in a series of minor clashes between the Madurese and local Dayaks, but it escalated into a full-scale anti-Madurese pogrom, the violence and savagery of which exceeded even that which had taken place in Sambas. Despite the involvement of Dayaks and Madurese as protagonists, there was a considerable difference in background to the conflicts across the two provinces, with the West Kalimantan case complicated by on-going and unrelated Dayak-Chinese and Malay-Chinese conflicts (Petebang and Sutrisno, 2000), while the Central Kalimantan violence was largely instigated by certain leading Dayak figures who stood to gain politically or materially (van Klinken, 2002). Nevertheless, in both cases economic marginalization of local Dayaks, coupled with remarkable economic progress by migrant Madurese, was a key contributing factor. However, my purpose here is not to discuss the causes of the ethnic violence in Central Kalimantan, but rather the impact of this ethnic violence on Madurese involvement in the Java Sea timber trade.

Unlike the 1997 and 1999 conflicts in Sambas, which had no significant effect on the timber trade,²⁴ the Sampit conflict and subsequent 'ethnic cleansing' did have serious repercussions for many Madurese perahu operators and timber traders. Vessels from Giligenting and Sapudi were on the whole relatively little affected, as many of them obtained their timber from Kumai, which was hardly touched by anti-Madurese violence, or further west, which was quieter still. But in the aftermath of the orgy of slaughter in Sampit, no port along the Mentaya river could be considered safe for Madurese vessels. Even Samuda was potentially dangerous, because although the town had initially remained peaceful while fighting and killing raged in Sampit, mobs of Dayaks from upriver had eventually arrived in truckloads and attacked the Madurese residents there (Surata and

with ethnic boundaries traditionally loose and alliances tending to be formed along waterways and adjoining areas. Dayak consciousness is a recent phenomenon, shaped largely by the increased presence of non-indigenous groups, and Islamization. Thus being 'Dayak' involves standing in distinction from not only Chinese and from other non-Bornean groups, but also from indigenous Borneans who have adopted Malay culture and religious ideas (see King, 1979). A fascinating description of the emergence of Dayak consciousness in Central Kalimantan is provided in Miles (1979). This is essential reading for anyone wishing to comprehend the ethnic conflict of 2001, as is van Klinken (2002), who draws considerably from Miles' study.

²⁴ The West Kalimantan conflicts in 1997 and 1999 did however disrupt the cattle export trade from Telaga Biru. Up until this time the cattle slaughtering and butchering trades in West Kalimantan had been dominated by migrant Madurese (Sudagung, 2001: 146), but with the relocation of most of the Madurese population of the province in refugee centres the cattle exporters of Telaga Biru were forced to diversify and seek alternative markets in Bangka and Beliton. The cattle trade to Pontianak

Andrianto, 2001: 110). The Katingan, Sebangau, Kahayan and Kapuas rivers were similarly unsafe. Relations between Madurese and Dayaks in timber loading areas along these waterways seem to have been generally good, but there were many stories of Madurese in rural areas being hunted down and murdered by groups of Dayaks from outside the areas concerned, and the fear of such murderous roving gangs was enough to keep Madurese vessels away.

In addition to the safety issue, virtually all of the Madurese timber traders in Pasuruan had lost their supply contacts in Central Kalimantan after the Madurese exodus, as in most cases the sawmillers they had relied on were also Madurese.²⁵ Eventually, most of the Madurese vessels discharging at Pasuruan and which prior to the conflict had obtained their timber in Central Kalimantan now turned to South Kalimantan, particularly Marabahan, Batulicin, and Kintap.²⁶ This transition was not too difficult, but the timber was more expensive than in Central Kalimantan, and it also involved in some cases waiting much longer to obtain a full cargo because supplies were less plentiful.

This turn of events was particularly worrying for the entrepreneurs of Sepulu, whose profits had depended on cheap timber and quick loading, with up to four voyages per month. After several months during which the local timber trade remained at a virtual standstill, some Sepulu vessels did try to load at Pegatan, on the Katingan. They were well received there, but it was not long before an attack was carried out by a Dayak gang from outside the area, and an innocent Madurese crewman was murdered.²⁷ In other cases murderous intent was replaced by common banditry, with Madurese crews becoming victims of extortion by Dayak gangs demanding high sums of money to ensure their safety.

Faced with this very difficult situation, the entrepreneurs of Sepulu came up with a remarkable strategy: to conceal the ethnic identity of their vessels. There were, after all, many Bugis vessels which obtained timber from the Pegatan-Mendawai area. First, it was decided that no more *golekan* style perahu should go to Central Kalimantan. Only these vessels, with their unique and unmistakeable Madurese styling, had been targeted by Dayak bandits. All *golekan* instead now turned to South Kalimantan to obtain their cargoes; and although there was strong loyalty to the type in Sepulu, no new vessels of this form were built there after this time. Vessels of the *sepel* model, which closely resembled smaller Bugis

subsequently recovered, however. (Interview, staff at the Telaga Biru Harbourmaster's Office, 16/10/2002.)

²⁵ A well-established Banjarese timber importer at Pasuruan averred that within his circle within the trade at Pasuruan he was the only importer not disadvantaged by the ethnic conflict, as his suppliers in Central Kalimantan were all Banjarese. (Interview, Haji Asrani, 5/10/2002.)

²⁶ The location of Marabahan is shown on Map 12, page 158; and the locations of Batulicin and Kintap are shown on Map 14, page 206.

and especially Mandar craft, were much less likely to attract unwelcome attention; and there were also a few vessels at Sepulu of the so-called *Bagan* type, based on the small motor-ships of the Riau port of Bagansiapiapi (see Lips, 1993: 92-102, plus photographs), which were similarly not associated with the Madurese ship-building tradition.

Second, in order to replace the *golekan* vessels lost to the Central Kalimantan trade, vessels were chartered from other places, especially Bima, in Sumbawa. Such arrangements were made in Pasuruan, where Bugis vessels from Bima were frequent callers, and Gresik. Third, many non-Madurese sailors, mainly Bugis, were hired in Gresik and Surabaya, to replace Madurese crews.²⁸ In most cases, however, the vessels which carried timber from Central Kalimantan to Sepulu thereafter did have at least one Madurese crew member, whose ethnicity was kept secret from outsiders. Some ‘Sepulu’ perahu had no Madurese crew at all, but it was felt preferable to have at least one local on board as a ‘trusty’ to report back to the owner or the timber boss. This ‘trusty’ was rarely the skipper, as this would have been too dangerous. Most Madurese perahu sailors have only an elementary education, and their spoken Indonesian – which they do not use much – is typically rough with a heavy accent which could easily betray their ethnicity to any sympathiser with Dayak extremists. Accordingly, the skipper, responsible for most of the negotiations on shore, was in most cases Bugis.²⁹

As a result of this strategy, Sepulu’s timber business continued to thrive. New vessels were ordered, especially from Sreseh, where labour was much cheaper than in Sepulu. In September 2001 there were several vessels under construction in the tidal creek at Bupoteh, Sreseh, for Sepulu owners. In one case the work gang had been contracted from Sapudi. To bring a gang from Sapudi to build a vessel in Sreseh for an owner in Sepulu seems on the face of it an unlikely arrangement, but there was little room available on the beach at Sepulu for the building of large vessels. While Sreseh was not exactly close to

²⁷ I had previously heard about this incident from sailors at Sepulu, but it was confirmed by a *kelurahan* official at Pegatan Hilir. According to this official, the perpetrators had come from upriver, and were not from Katingan Kuala. (Interview, Arul, 7/1/2003.)

²⁸ Most of the Sepulu sailors were able to obtain work on vessels going to South Kalimantan.

²⁹ The primary source of information on this strategy of the Sepulu entrepreneurs was the harbourmaster of Sepulu, who is himself of Bugis ethnicity.



Photo 25: Unloading timber on to the beach at Sepulu. The vessel in the foreground has been purchased or chartered from elsewhere.

Sepulu, it was certainly more convenient than distant Sapudi for the owner to be able to keep an eye on the construction.

Over the next year or so the situation in Central Kalimantan gradually became safer for Madurese perahu, with local police stopping the gangs of Dayak bandits who had been trying to extort money from Madurese crews. Large perahu from Sapudi and Giligenting were again regular callers to the Mentaya, especially at Samuda, and even *golekan* could again load timber in the Katingan without any problem. But with the exception of vessels from Sepulu, few of the smaller Madurese craft which had turned to South Kalimantan for their cargoes returned to Central Kalimantan, because in the meantime a new and more intractable problem had emerged, in the form of the imposition of new regional taxes.

Regional Autonomy

Under the Indonesian Regional Autonomy law, which came into effect on January 2001, all central government functions, staff, budgets, and assets were transferred to regional governments, and each *kabupaten* was expected to take steps to generate its own funds through the management of local resources, rather than rely on assistance from Jakarta and the provincial government. To facilitate the transition, in each province one *kabupaten* had been selected to participate in a nation-wide pilot project for regional autonomy. In Central Kalimantan, the 'pilot district' was Kotawaringin Timur, with its capital in Sampit. During the trial period Kotawaringin Timur's government achieved only minor success in increasing district revenue, and there was serious concern about the future. Consequently, senior

officials in Kotawaringin Timur decided, in a liberal interpretation of the national laws enabling districts to generate their own incomes (Laws 22/1999 and 25/1999), to create revenue for their district in a much more assertive and innovative way than had been envisaged by Jakarta.

In this vast and relatively sparsely populated *kabupaten*, the forestry sector offered by far the best potential for major revenue increase. It was common knowledge that illegal logging was being carried out on a large scale in Kotawaringin Timur, with no revenue being garnered for the *kabupaten* from this industry. A task force formed in March 2000 to investigate the extent of the illegal timber business discovered in a period of just a few weeks 178 vessels with illegal cargoes of timber, in the Mentaya river alone. Undoubtedly the number would have been much greater if the Katingan, Seruyan, and Sebangau river systems had been similarly checked. Although according to law these cargoes should have been confiscated and those responsible prosecuted, it was decided in the district assembly that the vessels would be allowed to proceed unhindered, provided that they pay a special district tax calculated on a per cubic metre basis. Once payment of this tax (or *retribusi*, as it was called) was made, a certificate would then be issued to that effect, giving the cargo legal status so far as the Kotawaringin Timur government was concerned (Casson, 2001: 10-11).

This move generated massive additional income for Kotawaringin Timur, with district revenue increasing by Rp 11.8 billion (approximately \$US 1.2 million) in the first three months of application of the new tax.³⁰ Extrapolating this figure out for the remainder of 2000,³¹ it appears that total income for the district for the nine months would have been around Rp 62 billion, an increase of 1500 percent over the annual average from 1995 to 1999; and more than half of this would have been from taxes on cargoes which Jakarta regarded as illegal.

Not surprisingly, this bold initiative from the Kotawaringin Timur government attracted strong criticism from Jakarta on the ground that it was legitimizing illegal logging. There would of course have been no objection from the central government to a new district timber tax provided that it applied only to timber obtained within the pre-existing forest exploitation system, with any timber obtained outside that system being liable to confiscation and those responsible prosecuted. But to comply with this expectation would

³⁰ Data from Table 8 in Casson, 2001: 16. Elsewhere (2001: 12), Casson states that the amount of additional revenue resulting from the first three months of the new timber tax was Rp 24 billion; but according to her Table 8, that figure was actually an extrapolation for the following six months (July-December 2000).

³¹ After an initial openness from Kotawaringin Timur officials about revenue from the new tax on illegally obtained timber, it was subsequently made clear that further detailed information would not be made available without special permission from the *bupati* (Casson, 2001: 13).

have greatly reduced income for Kotawaringin Timur. The revenue from the illegal timber trade was too important to do without, and after decades of what was regarded locally as exploitation by Jakarta the district assembly was in no mood to compromise. The legal timber companies operating in Kotawaringin Timur were also upset by the new timber tax, since in addition to the royalty and reforestation fees they too now had to pay the *retribusi*, moreover at a higher rate than was being charged to the illegal operators. The illegal operators were similarly disgruntled, as they now had to pay a considerable amount which they had not been paying previously, and moreover for a document with dubious legal status in Java.

Such cargoes obtained outside the legal system but bearing the approval of the Kotawaringin Timur government were in fact not generally acceptable in Java. A team from Kotawaringin Timur visited Java in July 2000 to promote the legal basis for its actions concerning timber (Casson, 2001: 12-13); but despite some concessions – for example, from the *kabupaten* of Blora, in Central Java, an important teak forestry area – it has increasingly become the case that all shipments of timber arriving in Java require a valid transportation permit (SKSHH). This of course had been theoretically necessary all along, but with increased official vigilance and concern over revenue evasion as well as the state of the environment, by mid-2001 it had become a practical necessity as well. Apart from vessels discharging in Sepulu, and to a lesser extent in Pasuruan, few now dared to carry timber without an SKSHH. This document is only supposed to be issuable to timber obtained legally; but with decentralization and the huge increase in the scale of the illegal timber trade since the mid-1990s, the origin of the timber has become less important than the payment of taxes. There seems to be little that Jakarta can do about this except to ensure that the royalty (PSDB) and reforestation (DR) levies are at least collected regardless of the provenance of the wood.

Kotawaringin Timur's extraordinary success in increasing revenue through the establishment of its own timber regulatory regime led to some other *kabupaten* in Central Kalimantan – notably, Kotawaringin Barat, with its timber port of Kumai – adopting a similar policy. Nevertheless, significant differences remained across areas in the efficiency of collection of revenue from timber. In the case of Kotawaringin Timur, checking the documentation of cargoes leaving the Mentaya presented no great difficulty, with police inflatables darting out to intercept any passing timber carriers; but in more remote places such as Katingan Kuala (Pegatan) there was considerable laxity in implementing the district timber tax law. However, this situation changed abruptly during the second half of 2002, after the split of Kotawaringin Timur into three separate *kabupaten*: Kotawaringin Timur, the 'mother district', with its administrative centre in Sampit; Seruyan, with its

administrative centre at Pembuanghulu; and Katingan, with its administrative centre at Kasongan.³² This move had been planned for some time, in order to increase administrative efficiency in the outlying areas. Under the new arrangement, salaries of administrative staff in the two new districts would only be paid for one year by the central government, after which time they would have to be paid from revenue generated within their own district. Accordingly, the collection of taxes from departing timber vessels suddenly became a matter of vital importance for local officials. To assist in this matter, ‘combined posts’ (*pos terpadu*) – consisting of representatives from the police, public prosecutor’s office, district military command, forestry service, and port officials – were set up at strategic places such as Pegatan and Kualapembuang, to check departing vessels.

As a result of this new vigilance it became much more difficult to evade payment of the district timber tax. With this tax now set at Rp 50,000 per cubic metre for sawn timber,³³ it was a significant imposition on timber importers, and made timber from Central Kalimantan more expensive than timber from South Kalimantan. At least one Madurese timber importer in Pasuruan, who felt that by August 2002 it was safe to order his vessel to resume buying timber from Pegatan, rued his decision when he discovered how much he had to pay. Subsequently he, like many other small entrepreneurs based at Pasuruan, continued to purchase his timber cargoes from South Kalimantan.³⁴

Increasingly tough enforcement of SKSHH requirements

The increased cost of timber from Central Kalimantan was particularly vexing for Sepulu traders, but by the latter part of 2002 this was not their major concern. More serious was an increased drive on the part of the authorities to curb illegal timber imports. From numerous accounts within the trade at both Sepulu and Pasuruan, this new tough policy began to be implemented in both places during the latter part of 2001. Up until this time the police had been apparently unconcerned at partial documentation of timber cargoes, with 30 or 40 percent being typical. The attitude appeared to be that 60 or 70 percent evasion of state taxes on timber imports was acceptable, given that in the past 100 percent evasion had been commonplace in the perahu harbours of Java. But now the police were demanding an SKSHH covering at least 90 percent of the cargo (allowing a small amount for trading on the crew’s own behalf), and accusing perahu operators of being ‘recalcitrant’ because of their reluctance to comply with the law.³⁵ In practice, vessels carrying an SKSHH for half or less of the cargo were still usually allowed through, after making a substantial payment to

³² For the locations of Pembuanghulu and Kasongan, see Map 12, page 158.

³³ Interview, Drs Yusuf Sulaiman, Head of the Division of Planning and Development, Kotawaringin Timur; 9/1/2003.

³⁴ Personal communication, Haji Matsahri, September 2002.

Airud police; but certainly the days when a vessel could slip into port with no documentation at all for its cargo of timber were over.

Checks on the legality of timber cargoes did not just take place at the destination port. A particularly fruitful place for *Airud* patrols was the waters around Kalianget. Most timber carriers bound for Pasuruan passed close to the eastern end of Madura, and many were caught in this area by police speedboats. One case in 2001 concerned an engineless perahu from Giligenting, which was intercepted carrying 100 cubic metres of timber from Kumai with no documentation at all. The vessel was escorted to Kalianget and detained there, while the crew and skipper were allowed to go home to Giligenting. A week later, the skipper was arrested by police and charged with transporting timber without a permit. The timber trader who had financed the purchase of the cargo, who lived at Banyuates on the north coast of Sampang, was also arrested and brought to Sumenep. Both the skipper and his timber ‘boss’ were sentenced to three months imprisonment, but as the organizer of this timber smuggling venture the ‘boss’ also received a fine of Rp 38 million. Taking everything into account, however, his actual loss was in the vicinity of Rp 100 million.³⁵

As word spread of such incidents, most timber importers opted to pay for an SKSHH, albeit for much less than the full amount of timber purchased. However, during this early stage of ‘socialization’ of the SKSHH in Pasuruan, some skippers still did not appreciate the necessity of carrying the SKSHH on board. The process of obtaining an SKSHH from the district forestry office usually takes at least four days, notwithstanding that the cargo is rarely physically checked at the loading port. Since the SKSHH is not applied for until loading has been completed, these four days or so are considered by the skipper and crew as ‘dead time’. Reluctant to wait around for this time, some impatient skippers naively arranged for the SKSHH to be sent by post to the importer in Java, unaware that this was not acceptable to the authorities.

In a single day in June 2002, three vessels from Sreseh, carrying timber bound for Pasuruan, were intercepted by an *Airud* patrol off Kalianget. None carried an SKSHH, but in two of the three cases, the permit had in fact been arranged and paid for (at around 40 percent of the actual volumes carried) as described above. In the case of the third vessel, no attempt whatsoever had been made to comply with the law. The owner of this vessel, who

³⁵ Interview with staff at *Airud* Police Office, Tanjung Perak, Surabaya, 27/9/2002.

³⁶ Interview, Pak Tolak, 8/7/2003.



Photo 26: Unloading timber at Pasuruan.

was also the financier of the timber purchase, was one Haji Taufik, of Labuhan, Sreseh. This individual was widely regarded by many in the local community as excessively commercially driven, while from the viewpoint of the police he was a ‘hard core’ offender as he had twice previously been caught for having organized undocumented shipments. All three skippers were arrested and placed in jail, along with Haji Taufik. The other two owners were not charged. Haji Taufik was subsequently released on a reported Rp 15 million bail, but the three skippers remained in jail. Due to problems with attendance of witnesses in court, the case against the skippers dragged on for three months before they were each found guilty of contravening the timber transport regulations and fined Rp 300,000. The result of the case against Haji Taufik is not known; but what was clear was that in all three cases the timber cargoes – which had been unloaded and trucked away by the police as ‘evidence’, without any receipts being issued – had disappeared. One of the ‘honest’ owners, Haji Matsahri, claimed that his total loss as a result of this incident was Rp 57 million.³⁷

With the penalty from such corrupt action far in excess of that imposed by the court, all vessel operators in Sreseh took care thereafter to wait for the SKSHH to be received before departing port. But they and many others using Pasuruan remained vulnerable to

³⁷ Interviews, H. Matsahri, 13/9/2002, 18/9/2002.

police extortion, since the documentation carried was typically for only 40 percent or less of the total cargo. There was moreover a general perception among vessel owners that the demands of the police for ‘sea tax’ were becoming heavier. One timber trader spoken to in September 2002 claimed that he had just paid a bribe of Rp 2 million to police so that his vessel could unload, even though an SKSHH was carried for 70 percent of the cargo.³⁸ Most traders felt that even if the SKSHH was for 100 percent of the cargo the vessel would still be subject to police extortion, because hardly any of the perahu complied with the *Pelayaran Rakyat* safety regulations. Most, for example, did not carry radios, notwithstanding that this was a requirement for all vessels of at least 35 gross tons (carrying about 100 cubic metres of timber). Consequently they remained easy targets for predatory corruption regardless of the legal status of the cargo.³⁹

As well as the police, Navy personnel were apparently becoming involved in this sort of predatory corruption. When I was in Pasuruan in September 2002 a Navy ship had been anchored off the port for two weeks, and from claims made by perahu sailors it appears that Navy patrol groups had made good use of this stay to obtain what they euphemistically referred to as ‘cigarette money’. One timber merchant claimed that during this period two vessels supplying his warehouse had been intercepted twice, first by an *Airud* patrol and then by the Navy. In both cases the *Airud* crew had demanded Rp 500,000 in return for allowing the vessels through; while in the case of the Navy patrol, one vessel had to pay ‘cigarette money’ of Rp 500,000, the other of Rp 3 million. The merchant concerned was angry at the skipper for handing over such a sum, but he acknowledged that the skipper had been intimidated. He was also irate about the involvement of the Navy, which he regarded as acting outside its jurisdiction. The same merchant claimed that he had also been subjected to extortionate demands for technical-legal shortcomings on the SKSHH, such as when a vendor in Kalimantan accidentally gave the name of another timber importing company to the officials making out the permit. The fact that the name of the purchaser was

³⁸ Interview, H. Asrani, 14/9/2002.

³⁹ No reader should doubt the extent of such predatory corruption by police and the military in Indonesia. Perahu make easy targets because their owner and crews lack a public voice, but truck drivers have also been frequent victims of extortion from state security personnel. In Aceh, for example, hundreds of container truck drivers staged a strike on February 1, 2001, to protest at having to pay up to Rp 500,000 to be allowed past police and army security posts (“Incidents illustrate offenses involving TNI members”, *Jakarta Post*, October 5, 2002, p. 3). A more sensational incident pointing to the seriousness of corruption in the armed forces occurred near Medan on September 30, 2002, after the arrest by the police of a certain local drug dealer. A short time later a group of army officers, who apparently had been receiving ‘protection money’ from this drug dealer, arrived at the police station demanding his release. The police refused. Later that night several truckloads of army personnel attacked the police station, shooting six police dead. (“Tentara serbu polisi, 6 tewas”, *Jawa Pos*, October 1, 2002, p. 1.)



Photo 27: Unloading into the warehouse. Most of the timber is stored under cover.

wrongly stated on the permit was really irrelevant in this case, as the name of the vessel was correctly shown; but the merchant nevertheless had to pay Rp 7 million to police in the port of Pasuruan before he could take his cargo.⁴⁰

Another problem for timber importers, and one of critical importance, is the time factor. Each SKSHH is valid for only five days from the date of issue, and this is clearly shown on the permit. This means that the vessel must reach the port stated on the permit within the specified time frame. The rationale for this limited time validity is to prevent the same permit from being used fraudulently to carry a second cargo. If the stipulated period was one month, for example, it would certainly be possible for a second cargo to be carried in that time, with of course evasion of substantial tax payments to the central government. But in practice, two full voyages in five days is not remotely possible. A longer period of validity, such as two weeks, would be more appropriate, especially as many timber-carrying perahu have rather small engines for the loads they carry. Indeed, according to the *Pelayaran Rakyat* regulations, they are supposed to be motor-sailers, with engine power restricted according to the size of the vessel. Some of the smaller timber carriers are slow even in smooth water, let alone against a heavy head sea. In July and August, when the southeast monsoon is at its height, vessels leaving Kalimantan for East Java often have to struggle against strong headwinds and rough seas, making it difficult for some to reach their

⁴⁰ Interview, Marthawi, 1/10/2002.

destination before the permit has expired. Similarly, any mechanical mishap can mean not making port in time. In cases of late arrival, timber importers claim that police take advantage of the situation by demanding a heavy bribe to allow the vessel to unload.⁴¹

The problem of the period of validity of the transport permit is less pressing at Sepulu, since it is quicker by a full day from southern Kalimantan to there rather than to Pasuruan. But Sepulu was by 2002 finally being targeted seriously by the authorities, who now regarded it as the major conduit for illegal timber. Whether because of increased pressure from the upper echelons of the administration or because of less corruptible police, the old system of organized pay-offs was no longer sufficient to ward off an official crackdown. As at Pasuruan, the navy made its presence felt by stationing a vessel off the beach port for a short period. According to one informant, during 2002 seven Sepulu vessels were towed by the authorities to Surabaya because of inadequate documentation. These vessels had apparently all paid the local *retribusi* in Central Kalimantan, but not the central government taxes, or royalties, without which payment an SKSHH will not be issued.⁴²

Nor was partial compliance with the law any longer a realistic option at Sepulu. Indeed, the official stance in this respect was if anything now tougher there than in Pasuruan. Forestry and police officials had become aware of the degree of evasion of taxes on timber imports, and there were some among them who had been involved in actual cargo checks – unloading the whole cargo on to the quay – and who could on the basis of this experience give a fair estimate of how much a vessel might be carrying. Numerous raids were conducted by police teams at Sepulu and nearby Telaga Biru, and harsh on the spot penalties meted out on all suspect incoming cargoes. Refusal by an importer to pay would result in the vessel being towed or escorted to Surabaya, where the cargo would be unloaded and checked against the documentation. Quite apart from any penalty resulting from a subsequent prosecution, such a procedure could entail major financial loss and disruption of business.

So successful was this campaign to enforce the timber transport regulations in Sepulu that by October 2002 virtually all shipments of timber to the port were accompanied by documentation for 90 percent of the total amount carried, a level of compliance much higher than in Pasuruan. The harbourmaster was no longer obliged to ‘go along with the culture’, and any vessel without a timber transport permit was not allowed into the port. But with the higher costs as a result of complying with the law, the profitability of the timber importing business at Sepulu was slashed. Haji Komar summed up the general mood in the

⁴¹ Interview, Haji Asrani, 5/10/2002.

⁴² Interview, Darno, 6/1/2003.

town by declaring gloomily, “In the past the timber business here was great, but Law 41/1999 [the revised forestry law] is fatal for us.”⁴³

Yet although it was now almost as expensive to import timber through Sepulu as through Surabaya, with profitability diminished accordingly, the volume of timber landed at the beach port abated only slightly. In late 2002, despite several months of virtually full compliance with the timber transport regulations, Sepulu was still a bustling place, with teams of labourers busy throughout the day unloading timber from lighter vessels and carrying planks on their shoulders to the stacks piled along the beach, and 75 to 100 fully laden trucks rumbling off each afternoon and evening, bound for Surabaya.

The key to this continuing timber traffic despite the strict enforcement of the law was the Sepulu Entrepreneurs’ Association. The leading figures of this organization, Haji Komar and his counterpart in Prancak, Haji Rofi’i – the son of the former *klebun* of Prancak, the late Nur Habib – realized that the only hope for Sepulu was for the local timber importers to all stand together, with all selling their timber for the same price taking the quality and species into account. Although it was necessary to compete against timber importers elsewhere, it was vital to not attempt to undercut the market to the point of unsustainability. Of course, no importer paying for an SKSHH on the full volume of his timber shipment would want to sell too cheaply, for a modest profit margin had to be maintained. But unlike in the major mainland ports, including Pasuruan, port forestry and police personnel were not stationed permanently at Sepulu. Given this, it was possible that whenever the coast seemed safe from a taskforce raid, some importers might be tempted to bring in timber with an SKSHH for only 30 percent, for example, of the total carried. This much cheaper timber could then easily undercut the main market, and in the process undermine the whole local economy. In such a situation local backers would be unwilling to invest in any venture with a high degree of legal compliance, knowing that their relatively expensive timber would not sell for a fair return; while at the same time most of them dared not take the risk of backing illegal imports, with the possibility of losing everything if the timing went wrong. If undercutting of the market through illegal importing took place, the volume of timber passing through Sepulu would inevitably decline, along with the port’s reputation as a reliable source of timber, and buyers would turn to other places.

Despite the Madurese penchant for individualistic action, through the influence of the Sepulu Entrepreneurs’ Association no importer charged any less than any one else at Sepulu regardless of the level of SKSHH compliance. If any importer was prepared to run the risk of only a 30 percent compliance that was his own business and risk; but the timber could not be sold for less than the prevailing price. In practice, and no doubt partly because

⁴³ Interview, Haji Komar, 2/10/2002.

of this strong social pressure to not undercut the market, virtually all incoming shipments did have an SKSHH for 90 percent of the total carried. Profits were now lean indeed by comparison with before, but through belt-tightening and a continuing high turnover, the timber traders of Sepulu were able to remain in business.

The situation at Telaga Biru was however very different. In September 2001 this port had still been a hive of activity, with several vessels unloading simultaneously and the warehouses lining both sides of the street along the foreshore filled with timber. But a year later the place was moribund. All but one of the warehouses were locked up, and through their barred paneless windows it could be seen that they were empty. The harbour itself presented a similarly dismal spectacle. There were as usual many vessels there, some of them large and in apparently sound condition; but now they were lying idle, some swinging at anchor, others tied up to the outer breakwater. The one exception, the only vessel in port laden with timber, was a 'foreigner', a Bugis *pinisi*, with its cargo being unloaded into the only warehouse which was open. Apart from this the whole port area seemed lifeless, with hardly a bicycle on the harbour street. The contrast with the bustle and vitality of Sepulu, only a few kilometres away, was little short of astonishing.

That this impression of Telaga Biru at this time was not deceptive became clear from conversations with locals. For decades there had been plenty of work for able-bodied men unloading timber, but now there was virtually none. Unemployment was rife, and there did not seem any prospect of this changing. At the level of the *kecamatan* (Tanjung Bumi) administration, the main hope for the future was now from an oil extraction project about twenty kilometres offshore. This oil rig, clearly visible from the coast, had recently moved into a productive phase. A considerable amount of oil had already been landed at Telaga Biru, and output was expected to expand over the next few years, with benefits to the administration as well as providing a continuing justification for the well staffed Harbourmaster's Office. But for the local men, most of whom lacked the skills in demand on the oil rig or the supply vessels, prospects of employment through this oil project were not high.

Although the cattle trade to Kalimantan was still viable, the other 'traditional' area of maritime enterprise from Telaga Biru, the passenger trade, was not. After operating in flagrant breach of the shipping regulations for decades, this trade had been closed down in the late 1990s, with all prospective migrants to Kalimantan thereafter having to take a modern passenger ship service from Surabaya. From a local entrepreneurial perspective, the main prospects were now felt to lie not in maritime enterprise at all, but rather batik. Telaga Biru is the only place in Madura where batik is made, and as more and more batik from the main production centres in Central Java has become semi-mass produced, using stamps

rather than the traditional *canting* (pen), the reputation of the town for high quality traditionally crafted batik has grown. But the niche market for this relatively expensive cloth is far smaller than that for the high quality timbers in which the traders of Telaga Biru had specialized, with correspondingly limited benefits for the community as a whole.

The reason for the economic malaise affecting Telaga Biru was both simple and predictable. As one of the officials in the Harbourmaster's Office expressed it, "The difference between Telaga Biru and Sepulu is that there is no *persatuan* [association] here."⁴⁴ In the absence of such an organization, the old Madurese pattern of individualism continued to prevail. No one wanted to pay for a 90 percent compliance with the transport regulations. A few managed to bring in timber cheaply without being caught, but many did get caught, until eventually no one was prepared to take the risk. By late 2002 there were only four or five vessels from Telaga Biru left in the timber trade, according to informants. But significantly, these were all large, carrying three to four hundred cubic metres of timber, at which size the economy of scale allowed a profit to be made despite full compliance with the timber transport regulations. These large vessels were moreover able to earn from both legs of each round trip, as they carried livestock on the outward voyage.⁴⁵

Nevertheless, despite their continuing involvement in the timber trade, these large vessels no longer discharged in their home port. Instead they took their cargoes of timber, obtained from either Pontianak or Samarinda, directly to Benoa, in Bali. Although it is the main port of Bali and close to the capital of Denpasar, Benoa had until recently been insignificant as a receiving centre for timber. Partly this was because of physical factors, as Benoa is located in the southern extremity of the island, and access to the port through the Lombok Strait is complicated by strong currents and, during the height of the southeast monsoon, strong headwinds. For these reasons the main timber port in Bali has been Celuk Bawang, near Singaraja on the north coast. Celuk Bawang is sheltered from the southeast wind, and perahu can lie easily to anchor while their timber is ferried to the beach. After the nearly universal fitting of engines in timber-carrying perahu the problem of accessibility to Benoa no longer applied, but most perahu continued to use Celuk Bawang. This was not only because it was closer and more convenient, but more importantly, because unlike in Benoa, the timber transport regulations were not enforced there. But with the general crackdown on timber smuggling, the laxity which had prevailed in Celuk Bawang came to an end, and the larger vessels turned to Benoa where a higher price could be obtained.

The era of timber trading with complete disregard for the national timber transport regulations had thus come to an end. Starting with the perahu ports of Jakarta, the

⁴⁴ Interview with staff in the harbourmaster's office, Telaga Biru, 16/10/2002.

⁴⁵ The cattle trade was still thriving, with around 1000 head being exported per month up until September 2002. (Information from staff in the Telaga Biru Harbourmaster's Office, 16/10/2002.)

requirement that timber cargoes be accompanied by an appropriate transport permit had gradually been enforced right along the north coast of Java, and Bali. This situation had in general been adjusted to by timber importers, with price increases passed on to consumers. East Java was somewhat outside this pattern, however. In that province, Surabaya and Gresik had been the first to be closed to fully illegal cargoes, followed by Sedayu Lawas, Pasuruan, and the timber ports of Madura. In Gresik and Surabaya, enforcement of the regulations had made little difference to the volume of traffic, as the demand was so high in Surabaya and the nearby inland cities of Malang and Mojokerto. In the case of Sedayu Lawas, this perahu harbour of old – now with improved facilities and a harbourmaster – had recovered as a timber port, serving the western portion of East Java. However, it was now used only by medium-sized Bugis craft. In the days when the inlet at Sedayu Lawas had been jammed with small Madurese perahu, Bugis vessels had never bothered to go there. In Pasuruan, the transition to importing timber on a legal basis had been less smooth, but the future of this major perahu port had never been in doubt since it served the whole eastern hook of Java. The position of the timber ports of Madura was however much more precarious. Telaga Biru appeared virtually finished as a timber importing centre, and Batiah and Pagar Batu had suffered a similar fate. Only in Sepulu, through the influence of the leading figures of the Sepulu Entrepreneurs' Association, had the crisis been weathered – but even so, with difficulty.

CHAPTER VIII

Madurese involvement in the contemporary timber trade

Although the early period of the boom in timber imports to Java was marked by a pronounced bias toward Jakarta and Surabaya, timber imports to Java subsequently became spread across a string of ports, from west to east Karang Antu (Banten), Sunda Kelapa, Kali Baru, Cirebon, Tegal, Semarang, Juwana, Sedayu Lawas, Gresik, Surabaya, and Pasuruan; and on Madura, Sepulu and Telaga Biru.¹ With the exception of Sunda Kelapa, and the Kali Mas harbour in Surabaya, both of which were effectively reserved for large Bugis vessels or *Lokal* motorships, Madurese vessels have been regular callers to all of these ports. However, instead of a port-by-port overview of the role of Madurese mariners and entrepreneurs in this trade, this chapter highlights the nature of Madurese involvement in the movement of timber from Kalimantan to Java by focusing on just three timber routes: Sukamara (Central Kalimantan) to Juwana, Kintap (South Kalimantan) to Pasuruan, and Sungai Kaki (Central Kalimantan) to Sepulu. There are of course other important timber trajectories, but the three mentioned are representative of Madurese involvement in the Java Sea timber trade during 2002- 2003, and yet have sufficiently different features to warrant separate consideration. This case-based approach enables a more detailed coverage than would otherwise be possible in a single chapter, while avoiding undue repetition; and there is moreover an emphasis in each case on certain aspects of the transport and circulation of timber, in order to reveal the inner workings of this trade as well as the roles and motivations of some of its key actors.

Sukamara to Juwana: The importance of the agent

Of the three main ports in Central Java, Tegal and Juwana are the destinations of preference for the small to medium-sized Madurese vessels, mainly because port costs in those places are cheaper than in Semarang, which is a more modern port used by ships as well as perahu. These days most Madurese vessels using Semarang are fairly large, with a capacity of 300 cubic metres or more, and they typically carry out freight work only with no timber trading interest. But regardless of size, all the Madurese vessels carrying timber to Central Java these days are from East Madura, with the majority from Giligenting and the rest from Sapudi.

Although the following discussion focuses on Juwana, there is no significant difference in the nature of the timber trade there and in Semarang and Tegal. There is

however a significant difference between the timber trade in those three ports by comparison with both West Java and East Java. Simply put, the law concerning the movement of timber has not been not enforced as rigidly in Central Java as in the two neighbouring provinces. Raids by police and forestry teams do occur, but only infrequently because of a system of organized graft payments to the parties concerned. These graft payments, euphemistically referred to in the trade as “coordination money”, are made by agents to various authorities as a normal part of the processing procedure for each shipment. This does not mean that vessels do not need an SKSHH for their cargoes upon arrival in port. They do require one, but the standard practice in 2002-3 was that the SKSHH covered only 50 percent of the actual cargo. A similarly low degree of compliance was still common in Pasuruan in late 2002, but the situation there was uncertain for timber importers not complying fully with the law, and incoming vessels were moreover being plagued by demands for payoffs to *Airud* police and Navy patrols. Vessels discharging timber in the three Central Java ports were relatively free from these problems. As one agent in Juwana explained, “Juwana is a community port. All the officials around here are locals. It’s all worked out in advance... everyone gets paid off, the DPC [*Dewan Perwakilan Cabang*, local branch council, of Pelra], police, forestry. There is hardly ever any trouble with raids, no one wants it that way. It all depends on the local community – when everyone cooperates, everything goes smoothly.”²

There is a significant exception to this system, however. The 50 percent compliance with the law is only bothered with if the timber is of good quality (reasonably straight and free from flaws), and can therefore fetch a good price on the market. But a considerable amount of inferior timber is also imported, for use in rough construction work, and in particular for making moulds for concrete formwork. This low grade timber naturally sells on the market for a lower price than would be obtainable for top-quality pieces of the same species; but both state and district timber taxes are imposed regardless of quality. Small-scale importers of low quality timber therefore feel that they cannot make an adequate profit if they pay for an SKSHH, even at only 50 percent compliance. For this reason, shipments of poor quality timber were still being landed completely illegally into Central Java in 2003, with the usual associated risks. Most of these illicit shipments were coming from the Central Kalimantan town of Samuda, situated a short distance up the Mentaya river. Prior to the exodus of 2001, Samuda was formerly a predominantly Madurese settlement, and relations between Madurese and non-Madurese in the area were not characterized by the same animosity as occurred further upriver at Sampit. It is therefore not surprising that most of the Madurese vessels calling to the Mentaya waterway since 2001 have been obtaining their timber from Samuda, even though the best supply areas were further upriver. It should be

¹ For data from selected ports and discussion on the volume of timber landed, see Appendix 2.

understood that many shipments from Samuda are accompanied by an SKSHH, especially on large Madurese vessels carrying cargoes of 400 cubic metres or more, to Semarang. But in the case of smaller vessels bringing timber from Samuda to Tegal and Juwana, documentation is routinely dispensed with altogether.³

Although such illegal shipments of lower grade timber are common, it is nevertheless good quality timber which predominates, mainly from Sukamara and Kumai, with a 50 percent level of documentation as noted above. A crucial figure in this system of quasi-legal timber importation is the shipping agent. By law all port administrative business is supposed to be conducted through an authorized shipping agent, and some agents also carry out a forwarding function, arranging cargoes for larger vessels. But in the context of the timber trade, the facilitative function of the agent has expanded greatly, so that many shipping agents are now pivotal players in not only the perahu shipping industry, but also the timber trade itself.

A case in point concerns the perahu *Dharma Bhakti* ('Loyal Service'), an engineless vessel from Giligenting working the Sukamara-Juwana route. This vessel carries only 100 cubic metres, a capacity which allows only modest earnings from freight work. Most vessels this size are for this reason involved in trading, but *Dharma Bhakti*'s owner, Pak Sum, of Giligenting, lacks the capital for trading in his own right. Nevertheless, because his vessel is engineless, and thus free from the expenses of fuel and mechanical maintenance, freight returns are significantly better than would be the case for most other vessels of comparable size. But this does not in itself mean that engineless vessels are necessarily more profitable. On the contrary, since the early 1990s it has been increasingly difficult for engineless vessels to obtain freight work at all in the timber trade, despite charging 20 percent less than the rate for vessels with engines. In the case of *Dharma Bhakti*, however, both the vessel's agent and the 'timber boss' (trader, or financial backer) are well aware of the economic advantages of relying on sail alone.

Dharma Bhakti used to carry timber from Kumai to Pagar Batu, with cargoes financed by a man from Nipa, near Banyuates on the north coast of Madura. Shipments were completely illegal, with good profits for both the 'timber boss' and the vessel owner. But in 2001 the vessel was intercepted off Kalianget, with no documentation for its cargo of timber. Along with the skipper, the 'timber boss' was arrested and charged with timber smuggling.

² Interview, Abdul Latif, 4/7/2003.

³ "Baru turun sehari, Pansus data 108 kapal memuat kayu", *Borneo*, no. 48, December 2002, p. 4. This article describes an official investigation into the volume of the timber trade on the Mentaya. Concerning Samuda, the investigators concluded that the majority of the vessels carrying timber from that port were leaving without any documents whatsoever, not even a port clearance. A senior port official at Samuda is quoted as saying that he refused to issue clearances to the vessels concerned

After three months in prison and a heavy fine,⁴ he decided he would be better off investing in the timber trade to Juwana in Central Java, where the business climate was less restrictive. This was hardly a typical business move for someone from the north coast of Madura. Although vessels from Sapudi and Giligenting had strong associations with Central Java and many individuals from Giligenting had set up as timber merchants in Juwana, Semarang, and Tegal, in the context of the modern timber trade the focus for entrepreneurs from northwestern Madura has been mainly on East Java, and especially on Madura itself. But as it happened, *Dharma Bhakti*'s timber boss knew a former perahu skipper from nearby Telaga Biru who had recently set up as a shipping agent in Juwana, and it was to this person that he turned to for assistance.

Without specialized knowledge and local contacts, to simply start importing timber to an unfamiliar area could be a risky business and likely to be fraught with administrative, legal, and financial problems. But *Dharma Bhakti*'s boss has had no such worries. Indeed, he has hardly any direct involvement in the business operation. Virtually everything to do with the actual buying and selling of the timber has been organized by his agent in Juwana, Abdul Latif, and the latter's timber agent in Sukamara – who is a cousin of Abdul Latif's, and also originally from Telaga Biru. Given that the amounts of money involved are quite large, and that there is no written contract between the parties involved and no surety against loss, it is obvious that personal trust is a critical element in this sort of business relationship; and this should moreover be viewed in the context of a culture in which commercial deceit and corruption are relatively common by modern world standards. It would be easy for an agent to increase his profit through collusive deals with timber merchants and by inflating the various official and unofficial charges incurred in importing the timber into Java. But agents would be unlikely to retain their clients for long if they did this. Many financial backers have only a vague understanding of the procedures involved, but they can and do compare their returns, and the stated purchase and sale prices for their timber, with the experiences of others. While redress for any shortfall might be difficult to obtain, a single case of deceit or non-payment could seriously harm both the good name and the business of an agent.

Abdul Latif's background and reputation as a former perahu skipper at Telaga Biru has stood him in good stead as an agent, for with the decline of the timber trade at Telaga Biru and Pagar Batu, many entrepreneurs from Madura were keen to invest in the trade to Central Java. By 2003 he had ten financial backers for the timber trade, all of them from

because they were carrying baulk timber, for which no district timber tax (Rp 50,000 per cubic metre) had been paid. The refusal to issue port clearances in such cases clearly had no impact on the trade.

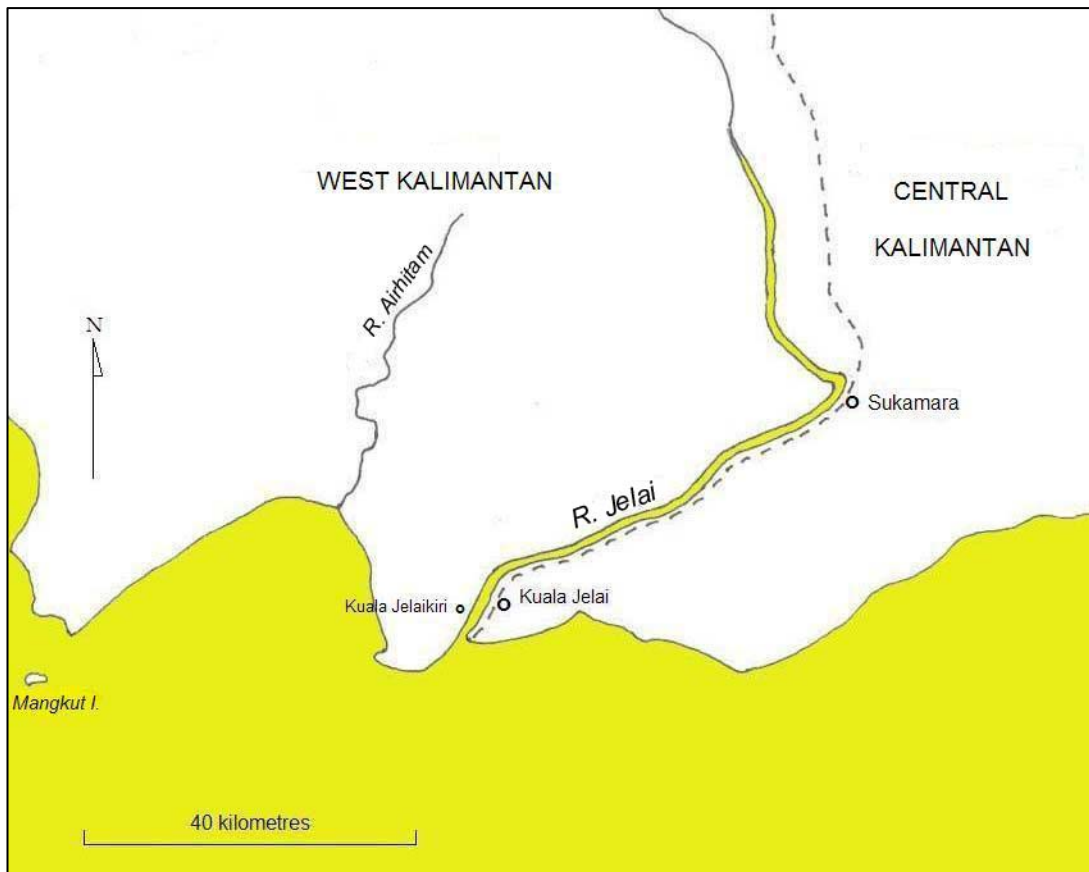
⁴ The case referred to on page 184.

Telaga Biru or thereabouts.⁵ All of these backers use vessels which come into his 'stable', with his agency dealing with ten to fifteen vessel calls each month. As agent, Abdul Latif makes only a modest profit from each vessel call, between Rp 500,000 and Rp 1,000,000, depending on the size of the vessel concerned. There is the possibility for greater profit by becoming involved as a timber trader himself, as some other agents have done, but in 2003 he had not yet been able to accumulate sufficient capital to make such a transition.

In July 2003 *Dharma Bhakti* was bringing timber from Sukamara, with her cargo arranged through Abdul Latif's timber agent in that town. Sukamara has become the port of choice for many smaller perahu, mainly because it is easier for them to obtain timber there, with no long waits. This increased traffic has nevertheless taken its toll on the easily accessible areas of forest. The distance to the felling area was said to be at one time only about five kilometres from the river, but now it is about 50 kilometres. The other major outlet in Central Kalimantan for timber to Central Java is Kumai, about 80 kilometres in a straight line to the east. Plenty of timber is still being exported through Kumai, but that port is now used mainly by larger perahu, some of which carry cargo – mainly cement, fertilizer, rice, or flour – from Java, bound for the nearby city of Pangkalanbun. Kumai is a relatively well organized perahu port by Kalimantan standards, and timber bound for Java is delivered to the dock area by truck, whereas in the Jelai river leading up to Sukamara perahu load directly from sawmills along the bank. This makes policing of loads and documentation more difficult, and on occasions when a 'team' has been carrying out spot checks on documentation, some vessels have managed to avoid the checks by relocating temporarily to the west bank of the river, which is under the jurisdiction of West Kalimantan.⁶

⁵ At least one of these entrepreneurs from Telaga Biru was also involved in exporting cattle from Juwana to Pontianak. Abdul Latif had in fact organized a shipment of 125 cattle to Pontianak in June 2003, on behalf of this person. (The receiving cattle trader in Pontianak was also from Telaga Biru.) I saw the documents and the costing. Freight was Rp 125,000 per head, and the exporter also had to pay port and agent costs of Rp 25,000 per head. The 'port' costs included a one-off payment to the local *Airud* police of Rp 200,000, for no service at all. (Interview, Abdul Latif, 17/7/2003.)

⁶ Interview, Hasanuddin, 10/7/2003. Nevertheless, a vessel without adequate documentation for the cargo is not safe from such checks until it has cleared Kuala Jelai, at the entrance to the river. In early 2003 a vessel from Giligenting was arrested in Kuala Jelai for having no documentation for a full load of bangkirai and benuas. Six months later the case had still not been resolved, a financial disaster for the vessel owner.



Map 13: The Jelai river.

Obtaining the timber directly from a sawmill also facilitates the obtaining of squared logs. These are trimmed roughly square with a chainsaw from smaller logs, usually below the approved felling size of 60 centimetres. The carrying and trading of squared logs and other baulk timber, as opposed to sawn planks, appears to have been a Madurese specialty from the start of the timber boom in the 1960s.⁷ Baulks were particularly suitable for small sawmills with limited equipment, even pit saws operated by hand. With the proliferation of powerful mechanized saws, these days much less baulk timber is exported to Java, and virtually none is landed in either of the Jakarta perahu ports. After all, sawmills earn profits by sawing logs up into planks. But baulks are still in demand, as they can be subsequently milled into any required size, and they provide a better trading return.⁸ For these reasons

⁷ Several informants from both Sresseh and Giligenting stated that that during the early period of the timber boom, Madurese vessels carried mainly baulk timber. Similarly, Howard Dick, who carried out fieldwork during the early 1970s, noted that Madurese perahu “are particularly suited to the carriage of livestock and heavy logs” (1975a: 74). Although Dick did not elaborate on this point, it seems clear that the transport of baulks, rather than planks, was from the outset a specialty of the Madurese.

⁸ Baulk timber is often of superior species, such as bangkirai or benuas, and therefore in demand for exterior construction purposes. Baulks of these species fetch up to Rp 2 million per cubic metre.

some medium-sized Sumenep vessels continue to import baulks from Sukamara, in particular, to Juwana and Tegal. Often these are just a few pieces carried on



Photo 28: Unloading squared logs from a large Madurese vessel, at Tegal.

the deck, but in some cases the entire cargo consists of squared logs, from 30 to 40 centimetres square by four to five metres long.

Because of the many vessels – both Bugis and Madurese – using Sukamara as a supply area, it was often necessary in 2003 to wait for two weeks before timber loading could commence. But business was also rather slow at the Java end, because of a sluggish economy. In 1999-2000, when consumer confidence was high and business brisk, it was standard practice to pay with 50 percent cash on delivery of the consignment, followed by a cheque for the remainder two to four weeks later; but in mid-2003 payment was by cheque only, from four and six weeks after delivery. In order to keep business rolling without long waits for sufficient money to come through thus requires additional capital, up to three times the amount required to import a single cargo.

Timber-carrying perahu obtain their cargoes from sawmills, which are not usually involved directly in logging. The sawmiller buys logs from local logging entrepreneurs, and thus becomes himself the vendor of the sawn timber. Until a few years ago it was common for operators of small vessels to pay for timber with cash, often only 50 percent at the time of purchase with the rest to be paid next time around, but these days transactions are conducted via telephone with direct payment into the vendor's bank account. Upon delivery

of a load of sawn timber to the vessel, the buyer or importer is informed by telephone by either his skipper or his agent of the amount of timber loaded and the cost, and he then transfers the funds for the purchase into the sawmilling company's bank account. In 2003, good quality sawn timber from Kumai and Sukamara was selling for Rp 350,000 per cubic metre, while the freight cost from Sukamara to Juwana was Rp 110,000 (Rp 125,000 to Tegal) per cubic metre. In addition to the freight, the importer is also liable for the cost of an agent in Kalimantan, around Rp 15,000 per cubic metre, although in very small ports this may not apply.

The remaining major expense in importing is a forest royalty fee (PSDH), required in order to obtain a timber transport permit (SKSHH). For the most common timber, mixed meranti, the PSDH fee was said to be Rp 70,000 per cubic metre if paid directly by a skipper to the regional Forestry office, but in practice it is usually paid for through a local agent for around Rp 90,000 per cubic metre. In the case of timber bound for Juwana and Tegal, the PSDH fee is usually paid on only 50 percent of the cargo, the rest being illegal. This level of compliance with the law is what the market will bear; if a buyer were to obtain an SKSHH for 100 percent of his consignment, he would not be able to sell it on arrival in Java for a higher price than that obtainable for a consignment with a 50 percent compliance.⁹

Finally, on arrival in port the importer has to meet the necessary 'coordination' expenses to allow the shipment through without unwelcome official attention. These 'coordination' costs are per vessel, rather than per cubic metre. They vary according to the size of the vessel, but even for a small carrier like *Dharma Bhakti* are unlikely to be less than Rp 1,000,000. The timber is then sold as a single lot, 'free on board', to a timber merchant in the destination port, and the costs of stevedoring and administrative work associated with the cargo thereafter become the responsibility of that merchant.

The following is a breakdown of typical costs in importing meranti timber to Juwana in 2003, in rupiah per cubic metre (Rp 10,000 = approximately US\$ 1):

Purchase price	350,000 (paid to sawmiller)
Freight charge	110,000 (90,000 if engineless)
SKSHH	45,000 (50 percent compliance, 90,000 per cubic metre)
Agent fees (Kalimantan)	15,000
'Coordination' costs	10,000 (estimated)
Total outlay	530,000
Sold on board	590,000
Profit per cubic metre	60,000

⁹ This is common knowledge in the trade, and was stressed to me by timber traders. (Interviews, Haji Asrani, Haji Zaini, Hamid Sahal, and others.)

This selling price of around Rp 600,000 is well below that obtainable in Jakarta, mainly because timber landed in West Java has a much higher compliance with the timber transport regulations. In the major timber port, Kali Baru, the standard rate of compliance was said to be 80 percent.¹⁰ While this still represents a significant evasion of state revenues, the timber landed in Jakarta is inevitably more expensive than that landed with a 50 percent compliance. In mid-2003, good quality timber was selling in Sunda Kelapa for Rp 800,000 per cubic metre, and a few months earlier had been selling for as much as Rp 1,000,000.¹¹ Because of the price differential by comparison with Central Java, many large timber users in West Java have tended to look across the border for their supplies. Tegal, just a short distance across the provincial boundary, is by the most important port for this traffic to West Java. Being much further to the east, Juwana is not so competitive in this respect, but some select grade timber is nevertheless sent on from there to Jakarta for the lucrative foreign export market.¹² According to Abdul Latif, about 20 percent of the wood which is landed through his agency is selected for this purpose. He arranges for it to be sold to a local dealer for a higher price than would otherwise be obtainable locally, and this dealer sends the timber off in full truckload batches to another dealer in Jakarta, who handles the actual export process. To be acceptable for export, pieces must be at least four metres long, of fairly substantial sawn size, usually 6 cm thick by a minimum width of 15 cm, and of flawless or near flawless quality. The species of wood is not important for the international market; rather, it is flawlessness that matters the most.

There is no administrative problem in moving timber to West Java, except that a transport permit has to be obtained for each truckload. If the timber is all legal, this is a minor matter, costing only Rp 25,000 per truck (not per cubic metre); the charge is low because the SKSHH, which is valid for any movement of the timber within Indonesia, has already been obtained. But if the timber is not fully legal, the matter becomes more complicated. This point will be returned to presently when focusing on the timber flow through Pasuruan.

The profit to the backer is typically from 10 to 15 percent per voyage. Since a vessel working for eight months of the year can be expected to complete at least six voyages, with an upper limit of ten, it is thus possible for a timber importer to almost double his money in

¹⁰ Interview, staff at PT Sendi Gita Pala (shipping agency), Kali Baru, 26/7/2003. The rate should of course be 100 percent, as at Surabaya and Gresik, but through a system of organized payoffs it is kept down to 80 percent. The 'private enterprise' nature of Kali Baru is very conducive to the operation of such a system. An officer on duty at the Kali Baru port police post told me, in apparent sincerity, "the secret [to the success of the timber business] here is this" – rubbing his thumb and fingers together to imply extralegal payments.

¹¹ Interview, manager of the Sunda Kelapa Pelra office, 2/7/2003.

just one year. Given that such profits can be made from buying timber in Kalimantan and selling it on board in Java, the question naturally arises as to why more Java-based timber traders are not themselves involved as financial backers for voyages to supply their own businesses. Some Java-based timber merchants do in fact purchase their timber from Kalimantan and have it shipped to Java, but for various reasons many others buy on board instead. In the first place, there is a considerable element of risk associated with buying and transporting timber from Kalimantan. Buying a cargo on board in Java eliminates this risk altogether. Second, the profits made from selling a cargo subsequently, within Java, are greater than those which can be obtained from the importing phase, and many merchants are already busy enough with the former line of work without the additional complication of becoming involved as shippers. Third, and most important, is the matter of capital. If sufficient capital is available, a merchant may well purchase his timber directly from Kalimantan, rather than buying it from a vessel in port. But in the absence of sufficient capital to do this, there is ample opportunity for external backers to become involved. The sale of the cargo 'free on board' is not left to the vagaries of the market, however; rather, the sale is arranged in advance, and each timber merchant in the port area will have one or more vessels carrying timber exclusively for his business.

An entrepreneur who wishes to set up as a timber importer will have no problem in selling his shipment of timber in Java for the prevailing market price. Many small timber merchants are keen to increase their supply, so much so that they sometimes have to buy from the warehouse of another merchant, at a higher price than that payable on board a vessel, in order to fulfil orders. It does not matter much if a merchant does not have sufficient funds to pay for the entire shipment on arrival, because with the strong demand for timber in Java much of the shipment will be sold on over the next two weeks or so, enabling the vessel's backer to be reimbursed.

But while this strong demand for timber in Java enables good profits for financial backers, it does not guarantee business opportunities for perahu owners. Many owners of smaller vessels lack the capital to purchase timber themselves, and their vessels are too small for others to be interested in becoming involved as backers. But *Dharma Bhakti's* owner has no such problems, thanks to his association with his timber boss from the north coast of Madura. His returns are more modest than those obtained by his backer, but nonetheless adequate, as shown by the following breakdown (all amounts in rupiah):

¹² Most of the timber exported internationally from Indonesia goes directly from the source area; in the case of Kalimantan, the major source area for the foreign export trade has always been East Kalimantan.

Freight charge	90,000 per cubic metre (engineless rate)
Gross freight earnings	9 million (cargo of 100 cubic metres)
Less operating costs:	
Food, agent, port fees, etc	2 million
Net freight earnings	7 million

Assuming a crew of six men, this net figure is then divided into ten equal shares of Rp 0.7 million, with four shares for the vessel owner and one share for each crew member. The vessel owner will thus receive nearly Rp 3 million for each voyage, amounting to Rp 20 to 25 million per year. He is of course liable for all maintenance costs, but these are relatively low on a well-built engineless perahu, and barring major mishap he can expect fair returns as long as his vessel is serviceable and has work.

In the case of motorized vessels, the arrangement is different, as in the following breakdown for a 200 cubic metre vessel with a six cylinder engine:

Freight charge	120,000 per cubic metre ¹³
Gross freight earnings	24 million (cargo of 200 cubic metres)
Less expenses:	
Fuel	5.4 million (3,000 litres x 1,800) ¹⁴
Food, agent, port fees, etc	2.6 million
Net freight earnings	16 million

This net figure is then divided by three equal shares, with one share to the vessel owner, one share to the engine owner, and one share for the crew. If the vessel owner is also the engine owner, he will thus receive two-thirds of the net earnings, or Rp 10.6 million in the above example. However, some Sumenep owners of both vessel and engine are said to take only 60 percent. Assuming eight voyages a year, the owner of a vessel carrying 200 cubic metres of timber can thus earn a gross annual income, before maintenance costs, of about Rp 80 million. Given that a new perahu of this capacity could be built and fitted out, including an engine, for between Rp 150 and 200 million in 2003, this is certainly a satisfactory return. ¹⁵

The remaining stakeholders in the transportation process are the vessel's crew members. With or without an engine, the crew share is divided evenly, except that the

¹³ Some vessels are also chartered directly for a fixed overall charge. One perahu from Giligenting with a capacity of 200 cubic metres was being chartered in 2002-3 for Rp 30 million per voyage. The profit sharing arrangements nevertheless remain the same as for a vessel earning from freight charge per cubic metre carried. (Interview, Sotlan, head of the *desa* of Bringsang, Giligenting, 26/1/2003.)

¹⁴ Diesel fuel cost Rp 1,800-2,200 per litre in Indonesia in 2002-3.

¹⁵ Further information on the profitability of owning and operating a timber-carrying perahu is presented in Chapter IX.

skipper receives half as much again as other crewmembers. On large motorized vessels with an engineer, or 'KKM' (*Kepala Kamar Mesin*, engine room master), that person also gets a larger share, usually the same as the skipper. On large motorized Madurese perahu calling to Central Java, crew members were typically receiving about Rp 1,000,000 per voyage in 2003. This compared very well with ordinary labour rates in Java and Madura. One 'engine master' on a Giligenting vessel, interviewed at Tegal, said that his earnings of around Rp 1,500,000 per voyage (more or less, per month) were

Not much, but not that bad... See those workers [stevedoring labourers] there, they get only 10,000 rupiah a day, sometimes 15,000, not enough to live on. Sometimes they work only three days a week, sometimes nothing. I feel sorry for them.¹⁶

In addition to their standard share, skippers from Giligenting and Sapudi also receive a substantial bonus from the owner for each completed voyage leg, to encourage honesty and avoid time-wasting in port. With this bonus, their earnings per voyage can be up to three times higher than those of their shipmates. Finally, there is a free timber transport allowance for crew members who wish to do some small-scale trading on their own behalf. Usually this allowance is one cubic metre per person, but on a large vessel a skipper or engine master may have an allowance of up to three cubic metres. On *Dharma Bhakti* this transport allowance was taken up in the form of a few baulks carried on top of the large hatch cover. These were the only baulks carried, with the backer's timber consisting entirely of planks. Costing between Rp 250,000 and 300,000 per cubic metre, these baulks can be sold privately in Java, or back in Giligenting (if the vessel is returning home at the end of the sailing season), for up to Rp 800,000 per cubic metre. If crew do not have their own funds, they can buy timber to the extent of their transport allowance on behalf of another party, usually a friend or family member, and share the profit with that person later.

South Kalimantan to Pasuruan: Free-wheeling shipper-traders

A feature of the port of Pasuruan by comparison with the ports of Central Java, and even Gresik and Surabaya, is the variety of vessels discharging timber there. Although Pasuruan is the closest timber port on Java to Giligenting, vessels from there and Sapudi are more likely to sail to Central Java, reflecting long-established transport patterns. Some vessels from Giligenting and Sapudi do carry timber to Pasuruan, but the port is also regularly visited by Mandar vessels from Kota Baru, South Kalimantan; Bugis vessels from Bima, in Sumbawa; Bugis vessels from Makassar; vessels from Pasian, on the eastern part of the north coast of Madura; and vessels from Sreseh, in southwest Madura. The largest category

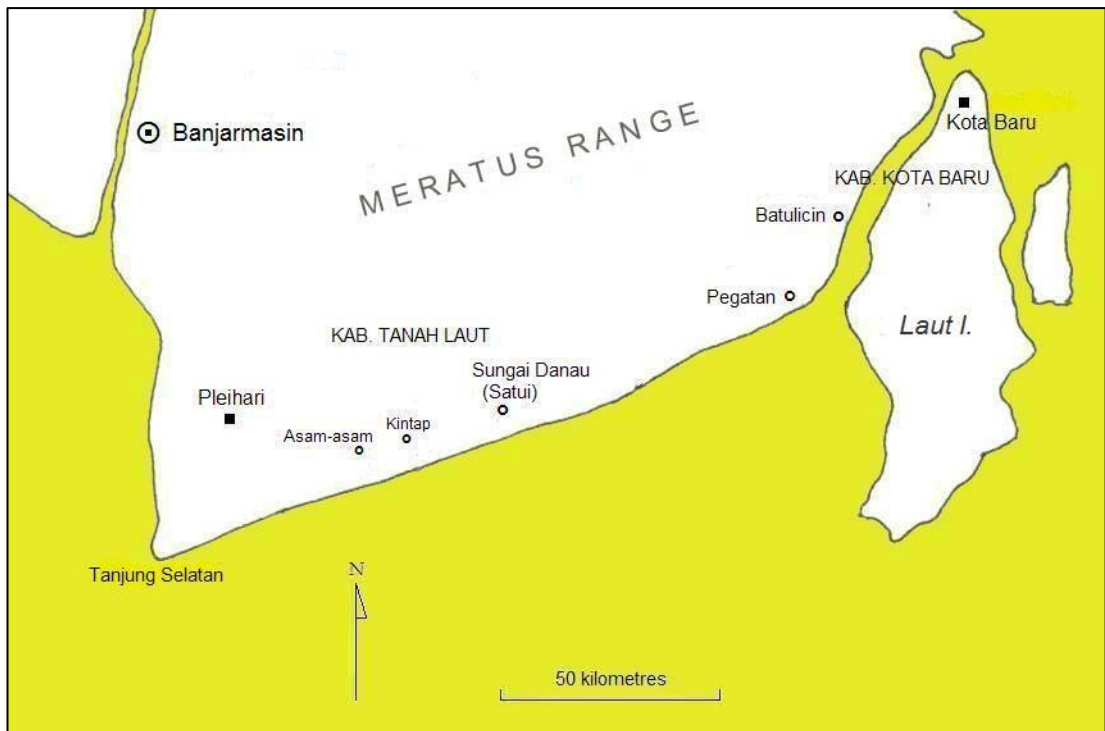
of vessels using the port come from Bima, but all the other categories mentioned are also significant. Within the context of this study, however, it is the timber carriers and traders from Sreseh who warrant special attention.

Entrepreneurs from Sreseh form a prominent group within the timber importing business at Pasuruan. This at first seems remarkable, considering that Pasuruan is such a large and bustling town, and Sreseh such a small and isolated place beyond the horizon on the other side of the Madura Strait; but it is readily explained. First, the strong outward migration from the Sampang-Sreseh area was historically focused on Pasuruan and nearby Probolinggo, whereas the outward migration from Pamekasan and Sumenep was focussed on Besuki, Situbondo, and inland areas of the eastern hook of Java. Even today, the orientation from Sreseh is more strongly toward Pasuruan than anywhere else in Java, with strong social ties. Second, salt from the Blega estuary which runs out through Sreseh has historically been transported by perahu mainly to Pasuruan, resulting in a strong maritime connection with that port. Indeed, some individuals from Sreseh who became involved in salt transport and trading to Pasuruan later moved into the timber trade in the same port as the salt business began to decline during the 1980s.

One such person is Haji Matsahri, of Batuputih, Sreseh, who not only owns his own vessel and imports timber on his own account, but is also joint owner, together with his eldest son, Marthawi, of a timber wholesaling business in Pasuruan to which he sells his cargoes. Haji Matsahri is however hardly involved in the day to day running of the business, which is managed entirely by Marthawi who lives with his wife on the premises. Marthawi's warehouse, situated a couple of blocks from the harbour, is supplied by a total of five vessels. One is his father's, while the other four are all Mandar-owned and operated, from Kota Baru on the island of Laut, off the southeastern coast of South Kalimantan (Map 13). Marthawi's business either finances the purchase of consignments from Kalimantan, with the vessels serving as carriers, or he buys the consignment on board in Pasuruan, by fixed agreement.

Haji Matsahri no longer goes to sea, not because he shuns arduous work, but because it would interfere unduly with his business interests. Indeed, he travels from Sreseh to Pasuruan and back almost every week, staying for one or two nights in the timber warehouse. Prior to the ethnic conflagration of 2001 his vessel, the *Sumber Makmur*, had been bringing timber to Pasuruan from Pegatan, in Katingan Kuala, Central Kalimantan. With that source no longer safe, Haji Matsahri switched to Batulicin on the southeast

¹⁶ Interview, Anwar, 7/7/2003. The wage levels cited were typical for unskilled workers in Java and Madura in 2003.



Map 14: Banjarmasin to Kota Baru.

coast of South Kalimantan. This was not a port he had sailed to himself, but he opted for it after discussions with the Mandar skippers who were also supplying Marthawi. In fact, Batulicin is a very convenient place for business as it is a gateway port and is regularly served by passenger ships from Surabaya. Consequently, despite not skippering his own vessel, Haji Matsahri was still able to be directly involved in his timber purchases. After being notified of the arrival of *Sumber Makmur* in Batulicin, Haji Matsahri would travel there himself. He would leave Sreseh at 4 a.m. and reach Surabaya by 8 a.m., in time to catch a modern high-speed ferry, and arrive in Batulicin in the late afternoon of the same day. There he would stay on board on his perahu, among companions and not spending money on accommodation and food stall meals. Although Batulicin is situated on an estuary, timber is delivered to the port by truck, with good sealed roads into the hinterland. For both crew and owner, being in port at Batulicin was much preferable to being moored, possibly for weeks at a time, alongside a sawmill in some remote riverine reach far from the bustle and amenities of a proper port town. In particular, it is only a few minutes walk from the harbour at Batulicin to the local branches of major banks, a significant advantage for business dealings. There was however one significant drawback to carrying timber from Batulicin: the high price of obtaining an SKSHH there. Through any of the local agents, the SKSHH cost Rp 120,000 per cubic metre, at least 20 percent higher than through agents in

most other places.¹⁷ The obvious remedy would have been for Haji Matsahri to conduct the transaction with the local forestry office himself, but like most Madurese skippers, he did not know the procedure. Moreover, he feared that his vessel might be physically checked if he tried to obtain the SKSHH himself. The latter prospect was especially worrying, as the documentation for *Sumber Makmur*'s cargo was always for only 40 percent of the actual amount carried.

Because the additional expense of obtaining an SKSHH at Batulicin could not be recovered on the highly competitive Pasuruan timber market, Haji Matsahri eventually turned for his timber to Marabahan, on the Barito river, well upriver beyond Banjarmasin. Although the timber was of good quality and there was no problem with excessive agent fees for organizing the SKSHH there, the supply at Marabahan was rather irregular. Unlike Batulicin, most timber to Marabahan comes down the river, towed by *kelotok*. During the rainy season there was no problem with supply, but during the dry season the water level falls, and it becomes increasingly difficult to get timber from the small tributaries close to where felling is carried out. Consequently, during the late dry season and the change of the monsoons perahu often had to wait for several weeks for the river to rise before they could obtain cargoes. Frustrated by this loss of productive time, Haji Matsahri decided in 2002 to switch to Kintap, on the southern coast of South Kalimantan in the *kabupaten* of Tanah Laut (Map 14). Again, he had not visited this place, but since 2001 several Sreseh vessels had been obtaining good quality timber from there, and all reports were favourable.

One problem with Kintap, however, was to find the place. Unlike most of the other timber ports of southern Kalimantan, the approaches to the Kintap river are almost featureless. There are no lights or beacons, no nearby islands, no distinguishing landmarks, no significant indentation in the coastline, and no township or large village visible from the sea. Moreover, although all the Sreseh vessels had compasses, none of the skippers owned a chart.¹⁸ A skipper wanting to go to a new destination would of course ask for directions from others who had made the voyage, but for Kintap such directions could only be vague – somewhere on the southern coast of South Kalimantan, about about one third of the distance from Tanjung Selatan to Batulicin – and would certainly include advice to ask the way from local fishing craft.

¹⁷ Numerous skippers complained in interviews about the high cost of obtaining an SKSHH through agents in Batulicin. One who spoke strongly about this was a local Mandar owner-skipper from Kota Baru, who regarded himself as fortunate because he was paying 'only' Rp 100,000 per cubic metre, with his supplying sawmiller organizing the permit. (Interview, Nurdin, 29/10/2002.)

¹⁸ This is no exaggeration. I bought a Java Sea chart from Australia and gave it to a skipper with whom I was friendly. He then kept the chart in his house, saying that it was 'too valuable' to be left on his vessel.

Vessels departing Sreseh for South Kalimantan usually leave the Blega estuary in the morning, and head eastward. The morning departure enables them to clear the Madura Strait, including the busy Kalianget area, before nightfall. However, if they were to continue motoring at the same speed they would reach the coast of South Kalimantan during the hours of darkness, which would be inconvenient and even dangerous. They therefore halt for a few hours near the island of Gilijang, off the northeastern tip of Madura,¹⁹ anchoring offshore in fairly deep water. They get underway again between midnight and 2 a.m., depending on the speed of the vessel. This schedule enables them to be close to, yet still at a safe distance from, the coast of South Kalimantan at dawn. During the first day out they pass to the east of the large island of Masalembu,²⁰ a major 'signpost' on this route. As the darkness fades on the second morning out from Gilijang, the backdrop of the Meratus mountain range comes into view, and perahu bound for Kintap head toward the eastern extremity of this inland range. With this heading, they eventually close with the low-lying coast, and then head along it at a distance of a kilometre or so, looking for the entrance to the river. A convenient recently-built 'signpost', not shown on charts, is a red and white telecommunications tower; the entrance to the Kintap river is a few kilometres beyond this. Fishing vessels are numerous in the area. The entrance is very narrow, about thirty metres across, and the estuary veers to the right just a short distance in from the sandy beach, so that from only a short distance offshore the coastline at that point appears unbroken.

As well as being narrow, the entrance is shallow, and it is no place for large vessels.²¹ Once inside the river widens out, however, and about one kilometre from the entrance there is a small township, Muara Kintap, situated on the eastern bank. But this is a place for fishing vessels, not timber carriers, which instead take a left turn at this point, up an unlikely-looking tributary, narrow and densely lined with *nipa* palms. The journey continues for about three hours along this winding waterway, with few signs of human activity except for the odd isolated house built on poles, each with a canoe tethered beneath, and the occasional lone fisherman in his canoe, tending his fish traps; until a series of small sawmills come into view. As their scrappy appearance indicates, these are 'wild' (unlicensed) enterprises. The sawmills become more numerous as one progresses upriver,

¹⁹ See Map 5, page 52.

²⁰ See Map 11, page 154.

²¹ When I arrived on a perahu at the entrance to the Kintap river, there was a *golekan* from Sepulu anchored outside. Although empty and riding high in the water, it was waiting for high tide before entering. My skipper nevertheless judged the depth adequate and took his vessel straight in, only for it to ground heavily on hard sand. It needed much pushing by the crew on bamboo poles and hard driving with the engine before we managed to scrape through.



Photo 29: Logs for processing at a ‘wild’ sawmill.

but with no sign of any township. Eventually a small cluster of houses, hardly more than a hamlet, comes into view on the west bank. All of the houses are built entirely of wood, including wooden shingle roofs, and most of them are unpainted. For visiting Madurese mariners, used to the whitewashed brick and plaster houses of their home villages, these drab wooden dwellings are a reminder that in this sparsely settled land, virtually all human needs are obtained from the looming forest.

As unlikely as it seems at first impression, this hamlet is the ‘timber town’ of Kintap.²² When I arrived there on Haji Matsahri’s *Sumber Makmur* in December 2002, there were already three Sreseh vessels moored alongside one another against the bank, and we rafted up on the outside to make four, a tiny temporary expatriate Madurese community. There were also a few other perahu scattered along the river: two others from Sreseh, three from Pasion, and the odd *golekan* from Sepulu, but there was no interaction between their crews and those of the Sreseh vessels.

There are about twenty sawmills at Kintap, all of them operating without permits, spaced out along both sides of the river. Most are owned by Banjar entrepreneurs, but four are Madurese-owned, and a few others Bugis-owned. There is no ethnic preference on the part of prospective timber buyers, however. What matters, from both sides of this resource frontier, is trust. Purchases are often made on credit, with payment being made when the

²² Kintap is a more important place than its appearance from the river suggests, for it is close to a main road and has a weekly market which serves the population of the surrounding countryside.



Photo 30: Sresih vessels rafted up at Kintap.

vessel returns next time. But as it happened, the sawmiller supplying *Sumber Makmur* was Madurese, originally from Sapudi. He spoke of Haji Matsahri and Marthawi as though they were acquaintances of long standing – the critical element of trust – but he had never actually met either of them.

When timber first started to be exported out of Kintap, in smaller quantities than now, it all came downriver, towed by *kelotok*. But the Kintap river is only a small waterway, and the surrounding land has been largely cleared. These days *kelotok* towing logs are still a common sight at Kintap, but the towed logs are usually smaller than the size approved for felling (60 cm diameter), and intended for local consumption. Virtually all of the wood destined for export to Java is instead brought to Kintap by truck. Indeed, the major advantage of the place is that it is close to a main road. The logs are mostly of meranti species, of good size and consistently good quality, and come from upland country about fifty kilometres inland. They are cut into lengths of four to five metres, as the trucks, with their short trays, cannot carry logs longer than this. The moderately short lengths also simplify handling of the logs at the sawmill end, as there is no mechanized lifting equipment. There is also a lot of ulin lying around the ‘port’, in both short log form for cutting into planks, and long lengths (12 to 15 metres) about 20 centimetres square, cut from young trees.

The trucks cannot reach most of the sawmills, as there is no serviceable road along the river banks. This is no problem, however, for the logs – excepting ulin ones, of course –

are simply dumped off the trucks alongside the river, and rolled in, before being floated downriver to the owner's sawmill. Each sawmill has a ramp extending into the water, and the logs are levered or winched up these ramps. Because the bandsaws of these small sawmills are not particularly large, the logs are first cut in half longitudinally, and then quarter-sawn, with chainsaws, before being milled into planks.



Photo 31: Logs quarter-sawn by chainsaw, prior to being milled into planks on the bandsaw.

Although timber exports from Kintap are thus not dependent on high river levels, supply is nevertheless uncertain during the early wet season. Indeed, in October and November 2002 some vessels had to wait in Kintap for a month or more before loading their cargoes. The problem concerned extraction from the forest. During the dry season logs are hauled from the forest by truck, while during the wet season, when the forest trails become impassable for trucks, buffalo are used to haul the logs out, stockpiling them at places where they can be reached by trucks. The transition from hauling by truck to hauling by buffalo takes some time to achieve, however, and buffalo owners do not always want to commit their animals to work with the first rain, because if this is followed by a prolonged dry spell, as is sometimes happens, trucks will take over again.²³

In December 2002 this logistical problem had passed, and supply was once again ensured through the deployment of buffalo log hauling teams. But when *Sumber Makmur's* skipper came to the sawmiller's premises, it turned out that the felling teams were then working in stands of *keruing*, so that this was the only timber available. Marthawi had just

²³ Interview, Hanan (sawmiller), 19/12/2002.

taken a shipment of keruing a couple of months earlier, and did not want any more at that time. The problem with keruing is that it is relatively expensive, and yet with only moderate durability at best, unsuitable for exterior work. Marthawi's customers were more interested in 'MC' (*meranti campur*, mixed meranti), which costs only about half as much as keruing. The logging gang offering keruing was lounging around in the otherwise empty Kintap market place, and showed no interest in talk about 'MC'. The skipper and crew would simply have to wait. But after a few days the sawmiller managed to procure some good quality meranti logs from another source, and commenced milling them into planks.

As the planks come off the saw they are loaded directly on to the waiting vessel, moored alongside the sawmill. Unlike most other timber supply ports, in Kintap the crews have to load their vessels themselves, rather than rely on stevedoring labourers.²⁴ The crew have the time available, but the work is arduous, and some are unhappy about doing it. A particular problem on this occasion was the loading of several long baulks of ulin, for keels and endposts in vessel construction at Sreseh. Because of their length, these pieces could most conveniently have been stowed on the deck. But as they were not to be declared, the skipper wanted them stowed deep in the hold, where they would be unlikely to be noticed by officials.²⁵ The baulks were eventually manoeuvred into place in the hold, but not without considerable difficulty because of the obstruction of the main thwart spanning the central part of the vessel.²⁶

With the vessel nearly fully loaded, the sawmiller applies for an SKSHH through the forestry office in the *kabupaten* capital of Pleihari, several hours' drive distant. He claimed to not make much profit from this work, but he considered this approach to be the safest, and expressed the view that if the skipper were to attempt to obtain the transport permit, some official might become suspicious and want to verify that the amount carried is the same as that stated on the application form. The sawmiller also helps to organize the port clearance. There is a harbourmaster at Kintap, despite the lack of an obvious 'port'; but on the way out the vessel must stop at the busy fishing port of Muara Kintap, where there is a branch Harbourmaster's Office, and pay Rp 750,000 to be allowed to exit. According to the sawmiller, only one third of this money actually goes to the Harbourmaster's Office,

²⁴ Not only is Kintap a small settlement, but there are other more steady and lucrative work opportunities available not far away, especially at Sungai Danau.

²⁵ Ethically speaking, this can hardly be considered a significant transgression of the law, since large amounts of ulin are used up in Sungai Danau and Batulicin for vessel construction, with no royalties payable. The timber is exempt because it is for 'local consumption', notwithstanding that the vessels themselves are subsequently 'exported' for Bugis owners.

²⁶ This heavy central thwart, situated deep in the hold, is a carryover from the traditional vessel types of Madura. There is no such main structural thwart in Bugis or Mandar vessels.



Photo 32: Loading planks into the hold.

with the remainder being channelled equally to the local *Airud* police and the navy.²⁷ At the end of the voyage, a similar amount will probably also be taken by an *Airud* patrol at Pasuruan.²⁸

Haji Matsahri's earnings come from two directions. First, as vessel owner, he profits from the freight:

Freight charge	83,000 per cubic metre
Gross freight earnings	10 million (cargo of 120 cubic metres)
Less fuel, victualling, etc	6 million
Net freight earnings	4 million

The net voyage figure is then divided into nine shares (of Rp 444,400 each, on the figures shown above), with one share for each of the crew, and two and a half shares for both the vessel owner and the engine owner. Since Haji Matsahri owns both vessel and engine, he takes five shares, giving him a return of about Rp 2 million per voyage.²⁹ The earnings of

²⁷ Interview, Hanan, 19/12/2002.

²⁸ According to Haji Matsahri, throughout 2002 *Sumber Makmur* only once managed to discharge cargo without this 'sea tax' having to be paid at Pasuruan.

²⁹ This division of the vessel earnings is more reasonable than it might appear. Sresesh vessels with small engines (four cylinders) usually have an eight-share division, with two shares each for the vessel owner and engine owner. But *Sumber Makmur* has a six cylinder engine, and according to Haji Matsahri, he would be unable to meet the costs of maintaining this engine on the 'small engine division'. The crew accept this, and indeed they share in the benefit of having adequate engine power. Many other vessels are under-powered, and very slow in adverse conditions.

the crew are modest, at about Rp 450,000 per voyage, but nevertheless much better than would be available from any other sort of work in Sreseh. Additionally, each crew member is allowed to carry one cubic metre of timber for his own purposes, with no freight charge. Timber purchased by crew members usually remains on board until the vessel calls in at Sreseh for a few days, before the next voyage begins. Timber is relatively expensive in isolated areas, and directly or indirectly, a profit can always be made on these small lots like this. The skipper also gets a bonus of Rp 275,000 for each completed voyage.

The freight charged by Haji Matsahri is very economical, and significantly less than the charge made by Madurese vessel operators transporting timber to either Central Java or Sepulu. But his greater profit is from trading, as follows (rupiah per cubic metre):

Purchase price	315,000
Freight charge	83,000 (charged against own vessel)
Port and agent fees (Kintap)	12,500
Total outlay	410,500
Sold on board	450,000
Profit	39,500

With the cargo of 120 cubic metres, the trading profit to Haji Matsahri is thus Rp 4.74 million per voyage. The above figures do not include the cost of the SKSHH, however. This cost is instead met by his buyer in Pasuruan,³⁰ his son Marthawi, and in fact the fee is usually paid (by bank transfer) in the first instance by Marthawi's agent in Pasuruan, Haji Solechin – who is also Madurese, from Sreseh. As for the example given at Juwana, the trading return shown represents around 10 percent profit on working capital per voyage, or around 70 percent per year. It is a good return, but as noted earlier, the risks are considerable.

With the timber now coming into Marthawi's warehouse, it enters a different, but equally critical, circulation phase. In addition to the purchase price of Rp 450,000 per cubic metre, Marthawi has to meet the SKSHH fee, which amounts to Rp 4.5 million (Rp 90,000 per cubic metre, for 50 cubic metres out of the total of 120), and he also has to pay for stevedoring and trucking costs, as well as his agent's fee. Consequently, his mixed meranti has cost him over Rp 500,000 per cubic metre. If he were to sell it locally, he would not make a large profit. But in Surabaya, where the timber transport regulations are strictly policed, the market price is higher. Pasuruan is only just over one hour's drive from both

³⁰ This arrangement is commonplace, and has the major advantage that the SKSHH shows the buying merchant in Java as the owner of the timber, regardless of the involvement of another financier. In the event of the vessel being apprehended for inadequate documentation, all

Surabaya and the large city of Malang. By selling to these places, and other destinations in East and even Central Java, Marthawi can make a profit of up to Rp 100,000 per cubic metre after his port and trucking expenses – more than twice the profit margin obtainable from buying in Kalimantan and selling free on board in port in Java. With Marthawi's warehouse being served by five vessels, bringing in a total of between 300 and 400 cubic metres of timber each month, the profit potential is excellent.

There is however a major problem involved in obtaining such handsome profits: the need for the correct documentation. When a load of timber arrives in port, the documentation for it, which states not only the name of the buyer and the volume of the timber, but also the number of pieces, sizes, and species, is lodged with the port forestry office. This information is then entered into a 'register' for each warehouse. To move timber onward by truck, a permit called the DPP (*Daftar Penggantian Pengangkutan*, 'list of change of transportation') must be obtained from the forestry office, again specifying the total amount, number of pieces, sizes, and species; and this information is duly noted in the register for the warehouse concerned. If the timber is fully documented (legal), this is a minor administrative procedure, costing only Rp 15,000 per truck (not per cubic metre) in 2002.³¹ The truck driver will have the permit, and should have no problems with the police if checked. But if documentation is inadequate, as is more often than not the case, risks abound.

It is not easy to get a permit for truck transport if the timber was not legal to begin with. The standard procedure is rather to arrange a police 'escort' (*pengawal*), who accompanies the driver, and confers an apparent immunity to checks. The rate for an 'escort' in Pasuruan in 2002 was Rp 150,000 – easy extra money for the police, and cheap insurance for the merchant. Some merchants chance deliveries without an escort, but the risks are high. In September 2002, a timber merchant named Baidawi was arrested because a truck shipment of his, from Pasuruan to Malang, was found to have no documentation. His premises were subsequently checked and timber worth around Rp 100 million was seized. According to my informants, he was only released, after one month in prison, because his wife managed to make a cash payment to the police of Rp 20 million.³²

responsibility falls to the owner stated on the SKSHH, in this case Marthawi's importing business. The major investment of the vessel, which is merely the 'innocent' carrier, is thus protected.

³¹ Most merchants were actually paying much more than this for a truck transport permit, usually Rp 25,000 per cubic metre (not per truckload); but this is a fee charged by the expediting agency which arranges the permit, and not the official cost. (Interview with port forestry staff, Pasuruan, 30/10/2002.)

³² Interview, Hamid Sahal (Pasuruan timber merchant) and his wife, 29/10/2002. According to Hamid his own shipments have for the past few years always been accompanied by escorts. His wife, from a well-known family in Sreseh, is a close relative of the unfortunate Baidawi. She was scornful of him for being caught like this, saying that it was his own fault because he was "too miserly to pay 150,000 rupiah".

Marthawi has also had his share of problems with truck transport. In September 2002 a truck carrying timber from his warehouse was detained at a road block in Central Java. The driver had a DPP permit with him, but the document did not state the species of timber, as required. Knowing that such an omission was most unlikely for a DPP arranged through the proper channels, the police telephoned Marthawi, who had to pay Rp 6 million before the truck was allowed to go on its way. According to Marthawi, the load was legal, but the driver had falsified the permit to show five cubic metres less than the actual amount, planning to steal the difference. Unfortunately for him, his temerity was not matched by an appropriate skill as a forger. Marthawi was particularly vexed over this matter, not just because of the driver's dishonesty and the loss of a large sum of money,³³ but because – as he claimed – the police were acting on a tip-off from a rival timber merchant in Pasuruan.

Such underhand business tactics have indeed been a feature of the intensely competitive Pasuruan timber market since the crackdown on the traffic in illegal timber. This is illustrated by the case of a Bugis timber merchant, Haji Aliansyah. This individual, a former perahu sailor from Pegatan in South Kalimantan, had saved up money until he set up his own timber importing business, P.T. Bintang Cemerlang, in Pasuruan in the early 1990s. Despite his modest start, his business approach was completely modern, in marked contrast to the other timber merchants around him. While most of his rivals had only an elementary education, Haji Aliansyah commenced business management studies at university, and in 2001, at the age of forty-one, had obtained his bachelor's degree – in itself a remarkable achievement, given the rarity of mature-age students in Indonesia. In further contrast to other timber wholesalers he not only employed five women to run the clerical and sales side of his business,³⁴ but also encouraged and assisted them to obtain tertiary qualifications. As his business grew, he also invested in vessels and engines, ensuring a steady and plentiful supply of timber. In 2001 his business was supplied by up to seventeen vessels, some of which he owned outright, while in some other cases he owned the engines. He also owned a large forklift for stacking timber, whereas other warehouses relied entirely on manual labour; and a large bandsaw for processing timber. Much of the timber imported through his

business was subsequently sent on to Jakarta, where the price was high. He never had problems with checks on his shipments, because unlike his rivals Haji Aliansyah cultivated

³³ A subsequent check on accounts for loads carried by this driver revealed that this was the second time that he had falsified a permit to understate the actual amount. He had not been caught the first time, but Marthawi claimed to have lost five cubic metres of timber in that transaction. A formal complaint about the driver was not made to the police, because to do so could have exposed Marthawi's business to unwelcome police scrutiny; but needless to say, the driver concerned was not contracted again. (Interview, Marthawi, 1/10/2002.)

good relations with senior police and forestry personnel. It seemed he was untouchable. In the Madurese-dominated Pasuruan timber trade, resentment smouldered.

An opportunity presented itself during Ramadhan in 2001, shortly after the appointment of a new local police chief, who was apparently keen to rout out the many timber merchants who were defrauding the state. Haji Aliansyah had not yet established a friendship with this person – possibly he was waiting until after Lebaran, the festive period at the end of the fasting month. At the time, Haji Aliansyah had been importing some baulk timber, possibly without full documentation, and processing this in his warehouse into smaller sizes. Another timber merchant known to him – according to the story, a Madurese – asked if Haji Aliansyah would process a few baulks for him (most warehouses do not have sawing equipment). Haji Aliansyah agreed, and the baulks were delivered, without any documentation. The following day there was a police raid, and naturally enough, the lack of documentation for this timber was discovered. The premises were sealed forthwith, and Haji Aliansyah was arrested. He subsequently served five months in prison. On his release he moved to East Kalimantan, where he set up four sawmills. A year after his arrest his warehouse was still not back in business, although one senior staffer had been retained as office manager, along with a couple of yardmen. The forkhoist had not been sold, as Haji Aliansyah hoped to reopen eventually. According to both the office manager of P.T. Bintang Cemerlang and officials from the harbourmaster's office at Pasuruan, the downfall of Haji Aliansyah was the result of a trap set by some of his envious rivals because he was too successful, using business acumen and skills which they did not possess.³⁵ Such was the nature of the timber importing trade in Pasuruan following the police crackdown in 2002, a cut-throat business fraught with rivalry and punctuated by personal business calamities.

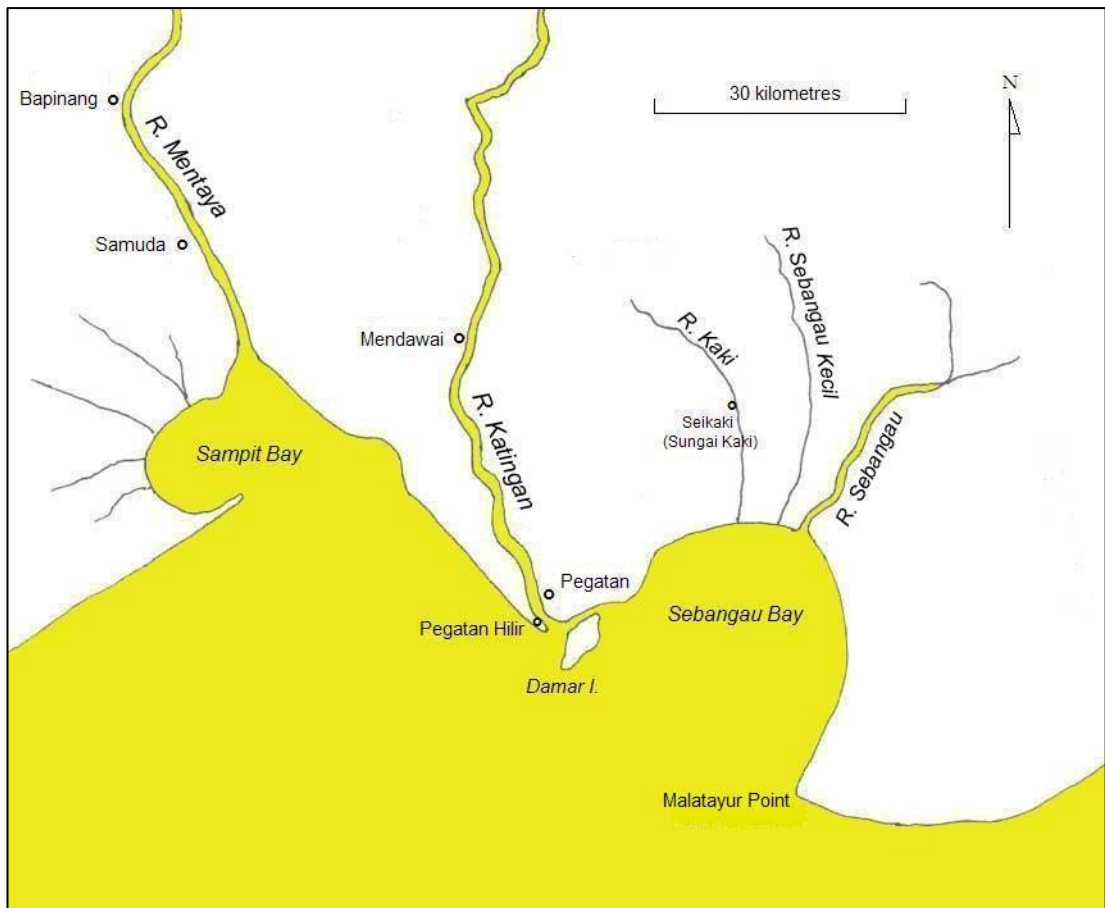
Sungai Kaki to Sepulu: The limits of the forest resource

Following the imposition of high district taxes on timber in 2000 as part of local-regional efforts to generate revenue for the *kabupaten* of Kotawaringan Timur,³⁶ the timber entrepreneurs of Sepulu turned for their timber supplies to a small river called Sungai Kaki, in a sparsely-settled peat swamp area in the southeastern corner of the huge *kabupaten*. This was not actually a new move, as some vessels from Sepulu had been carrying timber from Sungai Kaki for several years; but this place now became the main source for timber landed

³⁴ The other Pasuruan timber importing businesses with which I am acquainted do not employ female clerical staff.

³⁵ Interviews, staff in the Pasuruan Harbourmaster's Office, 30/10/2002, and the head clerk of P.T. Bintang Cemerlang, 25/11/2002.

³⁶ See page 181.



Map 15: Sampit Bay to Malatayur Point.

at Sepulu, for the simple reason that being relatively remote it was easier to avoid paying the new charges.

Timber extraction at Sungai Kaki was started by Banjarese entrepreneurs who set up unlicensed sawmills there in the 1990s.³⁷ It is possible that the timber was originally destined for the Banjarmasin market; but in any case, vessel operators from Sepulu came to hear about the prospects at Sungai Kaki. From the outset the timber was not of the best quality, but it was plentiful and cheap, and there were no officials to worry about. There is no nearby town (the nearest being Pegatan Hilir on the lower Katingan), no road access, and the inlet is not even served by coastal passenger boats.³⁸ The cheapness of the timber was a key factor, because the cheaper the timber landed in Sepulu, the more easily it could be sold

³⁷ Much of the peat swamp forest between the Sebangau and Katingan rivers, an area designated as 'production forest', has been for several years subjected to intensive illegal logging (see McCarthy, 2001b: 5).

³⁸ Passenger services around the southern coast of Kalimantan are provided by 'speedboats' – fibreglass boats with large outboard engines – with seating for about 20 passengers. Such boats do travel between Katingan Kuala and Kapuas, and as far as Banjarmasin, but they do not put in at Sungai Kaki as there is insufficient demand. To do so would involve a considerable deviation from the Katingan-Kapuas service, and the place can only be reached by chartering a boat.

to buyers from Surabaya and other parts of East Java. The timber was from the outset not of high quality, but that did not matter, as lower quality timber has its own market niche, for uses such as concrete formwork on construction sites.

A few vessels from Sreseh also took timber from Sungai Kaki, but otherwise it was only vessels from Sepulu which loaded there. As well as the advantage of avoiding paying the regional timber tax introduced in 2000, Sungai Kaki was, by virtue of its remoteness, the only place in Central Kalimantan which *golekan* vessels, with their unmistakable Madurese styling, could take on timber in the wake of the ethnic conflict in 2001.³⁹ Some Sepulu vessels had also been obtaining timber from the Sebangau river, a larger waterway a short distance to the east from Sungai Kaki, located in the *kabupaten* of Kapuas. However, in 2001 timber from Sebangau became at least as expensive as that from the Katingan river, as the Kapuas administration followed the example of Kotawaringan Timur and imposed its own timber tax (McCarthy, 2001b: 9-10). Since then Sebangau has been prohibitively expensive for small craft, although a few Sepulu vessels carrying around 300 cubic metres have continued to obtain timber from there, as with their better economy of scale they have been able to absorb the higher cost. A few entrepreneurs turned to Asam-asam and Kintap, in South Kalimantan, but these places were considerably further away from Sepulu, and the timber was not particularly cheap. For most of the Sepulu fleet Sungai Kaki remained the best option. But in the second half of 2002 this source became much less affordable with the formation of the new *kabupaten* of Katingan, and the imperative placed upon the officials of this new administrative district to raise revenue with which to finance their own salaries.

The land around the Sebangau bay area is all low-lying, and the entrance to Sungai Kaki, which is just as narrow as that of the Kintap river, cannot be seen until one is close. Nor is there any fishing fleet at Sungai Kaki to help point out the way. To get there, skippers of Sepulu craft head first for Malatayur Point, a broad low-lying promontory, and thereafter follow the shore of Sebangau bay, until Sungai Kaki is reached. For perahu from Sepulu, it takes about thirty hours' motoring before reaching Malatayur Point. The vessels used to leave Sepulu in the morning, with no great haste, and anchor in the afternoon of the following day off Malatayur. This allowed them plenty of time the next morning to find the entrance to Sungai Kaki and get settled in near the sawmill area before nightfall. Unfortunately, local pirates came to take advantage of this routine, and many Sepulu vessels were boarded during the night while anchored off Malatayur Point, and their crews robbed. After numerous such attacks, it became standard procedure in the mid-1990s for Sepulu vessels to leave their home port during the night so that they would not need to anchor, reaching Malatayur Point at dawn and continuing straight on. The pirates were eventually

flushed out by the local authorities; but it is also possible that they simply desisted their activities after vessels ceased anchoring off the point for the night.⁴⁰

Like the entrance to the Kintap river, the entrance to Sungai Kaki is shallow as well as narrow, and no place for large vessels. But in contrast to Kintap, the sawmill area is only a kilometre or so upstream, where the water is still brackish. The settlement, such as it is, is singularly uninviting. There is no village as such, no market, no fields, no road: just a sawmill camp with large open sheds on both sides of the narrow river, a line of purpose-built workers' huts built on the east bank, and the ground all around covered with sawdust and mud. There were few other houses apart from the workers' huts. During my visit, early in the wet season, a heavy overcast sky and intermittent rain added to the dreariness of the scene. As night closed in, along with steady rain, the perahu crews stayed on their vessels. When a friend, a hardened middle-aged mariner with experience of Sungai Kaki, heard that I intended sailing to there, he warned me: "Sleep on board the perahu, so you will be among friends." In the event I slept ashore, in the house of the local *kampung* head; but I came to understand what my friend had meant. It is not that the local people are in anyway hostile to Madurese sailors; indeed, they depend on the Madurese vessels which call there. But there is no comforting sense, for the outsider, of entering a true community; and no social resemblance, for example, to Kintap, which despite its shortcomings for visiting perahu sailors is in no way threatening to them. In Sungai Kaki there are no Madurese residents, and interaction between the sailors and sawmill workers is minimal. Like many other remote places where people stay only for the opportunity of work, it was probably never pleasant to visit; but in early 2003 there was a distinct air of despondency about it. A woman whom I met there told me that she had been recruited for work in Sungai Kaki from Banjarmasin a few years earlier, but she had subsequently married a local man and now she felt trapped there and could not imagine how she would ever get away from the place. A man, a sawmill worker, asked me directly, was it true that in Australia prisoners are given clothing, food, and health care? When I replied that it was true, he said, without a flicker of a smile, that "in that case, that [prison in Australia] would be better than staying here."

³⁹ Nevertheless, because of the fear among Madurese of going to Central Kalimantan, non-Madurese crew members were common on vessels going to Sungai Kaki.

⁴⁰ Interviews, Sartori (Sepulu harbourmaster) 8/11/2002; Arul (administrative assistant at Pegatan Hilir, Katingan Kuala), 8/1/2003; Haji Zaini (Pasuruan timber trader and former Sresesh skipper), 29/10/2002. According to Zaini, all the Sresesh vessels sailing to Sungai Kaki carried 'Molotov cocktail' bottles as defence against such pirate attacks at Malatayur Point. He claimed to have thwarted an attack himself one night off Malatayur by throwing a 'Molotov cocktail' into the pirate 'speedboat', which sped off after bursting into flames.



Photo 33: *Golekan* at Sungai Kaki.

Such comments reflected the dismal mood of the place. But what underlay that mood was that the resource upon which the people depended was drying up. Most of the sawmill workers were at that time idle, because of a shortage of logs; and what logs that were arriving were moreover small and of poor quality, producing reject-grade planks suitable only for temporary work (referred to as *kayu cor*, boxing-grade timber.) Later on, as the river levels rose during the wet season, more logs would become available; but the prevailing view at Sungai Kaki was that the local forest resource could only offer a livelihood for another two years. Logs brought to the sawmills at Sungai Kaki come only from the immediate environs of the Kaki river itself, which is only a small river system, and the surrounding forest has already been heavily logged over. The situation is thus quite different from that at Kintap, which although also situated on a small river system is connected through a network of roads to an extensive upland forest area.

The prospect of the sawmills closing down was of course far more serious for the local people than for the Madurese perahu crews. But the latter had their own reasons for discontent, as the shortage of timber at this time of the year, before the rising of the river level, was impacting on their livelihood. The success of the Sepulu entrepreneurs over the previous decade had to a large extent depended on quick turnarounds, with four trips a month the norm. Because of the rapid turnarounds, the system of payment for the crews at Sepulu was different from that prevailing elsewhere, with wages rather than the usual profit-sharing arrangement. The wage at the time was Rp 150,000 per man per voyage, with Rp

400,000 for the skipper. On a per voyage basis Rp 150,000 is of course very low remuneration by comparison with that received by crews elsewhere; but keeping the costs down like this enabled the Sepulu entrepreneurs to undercut the Surabaya market, while with four voyages a month overall income for the crews was still respectable and higher than that available from other lines of work. But now, because of the shortage of timber, it was taking a whole month for just one voyage, with earnings barely adequate for survival. In April, after a three-month lay-off for the Sepulu vessels, there would once again be a 'timber flood', but everyone knew that four voyages a month would never happen again.

In addition to the problem of supply, the economic viability of the timber trade from Sungai Kaki was now threatened by the vigilance of the officials of the recently-created *kabupaten* of Katingan. In the early days of the timber boom from Sungai Kaki vessels simply sailed as they pleased, without observing the usual protocol. Following the crackdown on the lack of transport permits and state revenue evasion, skippers had been obliged to obtain an SKSHH, but up until 2002 this had been for only 30 percent of the cargo. The document was arranged by the supplying sawmiller, from Banjarmasin, which is of course not in Central Kalimantan. From Sungai Kaki it is a long way to Banjarmasin, but it is also a long way to Sampit or Palangkaraya. The local sawmillers owned or had access to small fast outboard boats, and they also knew the procedure and officials in Banjarmasin, which was really home territory for them. But more importantly, unlike in Katingan or Kotawaringin Timur, there was no special district timber tax payable in Banjarmasin.

Some local officials must have been aware of this loss of revenue to Kotawaringin Timur, but with Sungai Kaki such a difficult place to reach nothing was done about it until late 2002, after the establishment of the new *kabupaten* of Katingan.⁴¹ Although an SKSHH from Banjarmasin was regarded as perfectly legal in Java, the officials of Katingan had strong reasons for wanting it to be obtained in their own administrative district. First, the district timber tax of Rp 50,000 per cubic metre could then be enforced, as the SKSHH would not be issued without this tax being paid; and second, although all the state timber tax (PSDH, IHH) had to be remitted to Jakarta, 32 percent of the amount collected would be subsequently given back to the source district.⁴² To ensure the collection of revenues from timber leaving the district, 'combined posts' (*pos terpadu*), staffed by forestry, police and harbour officials, were set up at strategic points. Whereas clearance to sail used to be given by a harbourmaster (the nearest one being stationed at Pegatan Hilir), clearance now had to be obtained from the *pos terpadu*, and would not be issued unless an SKSHH could be produced from Katingan.

⁴¹ See page 183.

⁴² Interview, Drs Yusuf Sulaiman, head of the Economic Planning Division for Kotawaringin Timur, 9/1/2003.

If the timber coming from Sungai Kaki had been of high quality, the entrepreneurs of Sepulu might have been able to cope with the additional cost of the district timber tax. But the unanimous view in both Sungai Kaki and Sepulu was that the district tax was unreasonable for such low grade timber, which could not then be sold for a profit in Java. This view is understandable, because the district timber tax is set at a fixed level, irrespective of both the species and the quality of the timber. Similarly, the state timber tax does not take the quality of timber into account.⁴³ It is therefore not surprising that despite the efforts of the Katingan officials to close the Banjarmasin loophole, the Sungai Kaki sawmillers continued to obtain their documentation in Banjarmasin. According to the Sepulu harbourmaster, clearance documents for vessels departing Sepulu for Sungai Kaki always stated the intended destination as a place called Kerengbangkirai (an administrative subdistrict to the south of Palangkaraya), rather than the much closer Pegatan Hilir, because officials in the latter were ‘too strict’. On their return to Sepulu, however, instead of a clearance to sail from Kerengbangkirai, as might be expected, these vessels routinely carried a port clearance, as well as an SKSHH, from Banjarmasin. As extraordinary as this was, from the Sepulu harbourmaster’s position there was nothing illegal about it. However, while he was sympathetic to the argument that the district timber tax being levied in Katingan was inappropriate for low grade timber, he was less than impressed by the fact that as ‘operations’ in Sepulu by police and forestry teams had become less frequent, the level of compliance had declined, so that by mid-2003 most perahu were again carrying documentation for only around one third of the actual amount carried.⁴⁴

If the authorities concerned had presumed that ‘socialization’ of the timber transport regulations had been achieved in Sepulu, after a year of virtually complete compliance, they were clearly mistaken. Yet just as the ‘timber bosses’ of Sepulu had little choice – if they were to remain in the timber importing business at all – but to break the law in Katingan by getting their transport permits elsewhere, so too their reversion to massive understatement of cargoes in order to minimize payment of state taxes was understandable. The problem was that so many importers in Pasuruan were still landing their timber cheaply by understating their shipments. Under such circumstances, the entrepreneurs of Sepulu could not compete on the Surabaya and Malang markets unless they followed the same strategy. Haji Rofi’i, the head of the *desa* of Prancak, in Sepulu, said, “It’s like beer. Beer is supposed to be banned in many places on Madura, yet it finds its way in just the same. In the same way, illegal timber keeps coming in through Pasuruan, undermining our business.” Yet he did not blame the Pasuruan merchants so much as the East Java provincial government, and was bitter about what he regarded as its overly zealous attitude on timber imports, whereas (as he averred) in

⁴³ See page 194, concerning avoidance of documentation for low quality timber from Samuda.

Central Java the timber trade was “completely free”, and in West Java compliance was only 10 percent.⁴⁵

Although the timber importers at Sepulu were evidently finding their own way – for the time being, at least – around these economic problems, the situation was less tractable for vessel operators without any trading interest. One of the many vessel owners of Sepulu in this category was Haji Saiton, whose *golekan* was in Sungai Kaki while I was there. Lacking sufficient capital to set up as a trader, his income is derived from freight only, with his ‘timber boss’ a man from Klampis, a short distance to the west of Sepulu. Haji Saiton does however own the vessel’s engine himself. His house is very comfortable and expensively furnished, suggesting that his shipping business has been successful; but according to him, the house was financed entirely from earnings from Malaysia, and not from shipping profits. In a corner of his lounge was a ship to shore radio, a sign of the times; another radio was on board his perahu. The radios cost Rp 2 million for the pair, second-hand. The safety regulations stipulate that all motorized perahu over 35 gross tons (with a theoretical capacity of about 100 cubic metres) are supposed to have two-way radios, but Haji Saiton’s reasons for fitting the radio had nothing to do with crew safety. Rather, the radio was to warn his vessel to stay at sea if an ‘operation’ was underway at Sepulu, or alternatively, that it was safe to come into port. Most of the Sepulu vessels now carry radios as essential ‘economic equipment’.

In 2002, Haji Saiton’s perahu was intercepted at a ‘post’ at Sebangau Besar (the Sebangau river), where good timber is still plentiful. Haji Saiton claimed that although an SKSHH had been obtained for the cargo, a *taktis* (special district tax) of Rp 9 million was demanded before the vessel was allowed to proceed.⁴⁶ This payment became the responsibility of the timber trader from Klampis, who thereafter decided that it would be better to obtain his timber from Sungai Kaki. As vessel owner, it made no difference to Haji Saiton whether his perahu carried timber from Sebangau Besar or Sungai Kaki, as the freight charge was the same for both, at Rp 90,000 per cubic metre. This was the standard rate for Sepulu, and for the distance involved represented the same value as charged by Giligenting operators to transport timber from Central Kalimantan to Central Java. However, as the following account shows, that freight rate was not sufficient to give Haji Saiton, with his 100 cubic metre vessel, an acceptable return in 2003:

Freight charge	90,000 per cubic metre
Gross freight earnings	9 million (cargo of 100 cubic metres)

⁴⁴ Interview, Sartori, 22/7/2003.

⁴⁵ Interview, 17/10/2003. Haji Rofi’i was evidently misinformed about the level of compliance outside East Java, but I include his comment here as it is indicative of the sentiment at Sepulu.

Less expenses:	
Fuel	5 million (2,300 litres x Rp 2,200)
Victualling, port costs, etc	1.5 million
Wages	0.9 million (150,000 x 6 crew) ⁴⁷
Skipper's wages and bonus	0.4 million
Net freight earnings	1.2 million

The above statement would hardly encourage a careful investor to become involved in the shipping business. Rp 1.2 million per month is clearly a poor return for the large capital outlay, and moreover does not take into account the cost of engine maintenance and vessel depreciation. Returns were formerly much better than this, however. The first major factor adversely affecting profitability was the price of fuel. After the rupiah plummeted in 1997-98, engines and especially spare parts became much more expensive, as they had to be imported into Indonesia. But diesel fuel, which was produced within Indonesia, remained cheap, well below world parity prices. Eventually, however, the price of diesel was increased substantially as Indonesia came under pressure from the International Monetary Fund to phase out domestic fuel subsidies. In late 2002 it was costing Rp 440,000 on Madura for a 200 litre drum of diesel, approximately twice what it had cost a couple of years earlier.

The other major factor affecting freight profitability was the number of voyages made each year. The modest voyage profit shown above might have been acceptable if four voyages were being carried out per month, as was common during the 1990s; but now, due to the serious decline in the availability of logs at Sungai Kaki, it was taking a whole month to obtain a single load.

The crew were similarly affected by these conditions: Rp 150,000 for a month's work was poor pay indeed. A change to the profit-sharing arrangements as used in other parts of Madura would be a modest improvement for them, but still not enough, while such a change would drive many vessel owners at Sepulu out of the shipping business. Haji Saiton was extremely pessimistic about the future, and said that he wanted to sell his vessel, adding gloomily, "If you know of anyone who wants to buy my perahu, it's going cheap." Like many perahu operators, in Sepulu and elsewhere, he had come to realize that in the rapidly changing circumstances of present-day Indonesia, vessels which would once have been regarded as large were now too small to be economically viable without a trading interest as well.

⁴⁶ It is possible that the SKSHH had been obtained from Banjarmasin, in order avoid the district tax.

⁴⁷ A crew of six is typical for Sepulu. In Sreseh most vessels of similar size have a crew of only four including the skipper.

CHAPTER IX

Seafarers and maritime entrepreneurs

The preceding three chapters have focused on the involvement of the Madurese in the Java Sea timber trade over the past four decades. This treatment has however concentrated primarily on structure and process, rather than on actual participants in these events. Certainly, mention has been made of the role of various individuals in the timber business; but this has not been sufficient to convey a deeper understanding of the cultural dimensions of the maritime group with which this thesis is primarily concerned. What sort of people are these seafarers and maritime entrepreneurs of Madura, so widely known about, and yet so little actually known? Is seafaring and trade really, to use the popular parlance, ‘in their blood’? How do they compare with the Bugis as traders and seafarers? How important is family background for success? What sort of risks do they take? What is their view of the modern Indonesian state and its regulatory apparatus, in so far as it affects them? And, bearing in mind that the Madurese constitute one of the most controversial ethnic groups in Indonesia, what of their cultural style, and their relations with others outside their group? This study would fail to fulfill the promise implicit in its title if it does not inform on these issues.

In order to penetrate the veneer of preconceived notions held by outsiders with regard to the maritime Madurese, six individuals among them will be profiled in this chapter. These six people are not necessarily typical, comprising a sort of random sample. Rather, they have been selected in an attempt to give the deepest insight possible, within the constraints of a single chapter, of the Madurese as a maritime people. All the cases are quite different, and three of them feature key individuals who have significantly influenced the course of events around them. Importantly, each of the major perahu centres of Madura – the northwest coast, the southwest coast, and the eastern islands – is represented. In most cases the names of these people have already been mentioned in this work, but with no elaboration about their persons or the course of their careers.

In the final part of the chapter, some key points apparent from the profiles are noted and discussed. One of these concerns the issue of vessel losses and vulnerability of the primary investment. Particular attention is given to this point because of its crucial economic implications, and also because of the insight it provides concerning the maritime culture of the Madurese. Finally, some observations are offered about the Madurese as a maritime group by comparison with the Bugis. A brief consideration is relevant here because of the

perspective which emerges about the Madurese themselves, including the highlighting of differences between the maritime cultures of West and East Madura.

*Pak Yakob*¹

Pak Yakob is a former head of the *desa* of Telaga Biru. He held the position for 26 years, retiring in 2000 in favour of a nephew. He is still popular and influential locally, and his personal backing was essential for his nephew to succeed him as *desa* head. He is an example of the *blater*, or tough, type of local leader, so much the exception in Madura.² Most modern *desa* heads in Madura (as elsewhere) are noticeably mindful of etiquette and cautiously polite when talking with outsiders. By comparison, Pak Yakob, with his forthright manner of speaking, robust physique, and a patch over one eye, cuts an almost piratical figure. And indeed, his career has been more colourful and adventurous than that of the typical village-level administrative head.³

He was born in Telaga Biru, the son of a perahu sailor. Like most other young men of his village, his education was elementary, and he went to sea at an early age, in 1955, crewing on a small *golekan* shipping cattle to Pontianak in West Kalimantan. As was typically the case with seafaring families, he did not work on the same vessel on which his father crewed.⁴ No Telaga Biru vessel had a compass in those days, and nor were any maps carried, let alone a proper chart. The main navigational ‘signpost’ for their outward journey was the island of Karimata: as Karimata came into sight, vessels bound for Sumatra would head to the left (west), while those bound for West Kalimantan would turn to the right (north). As well as key landmarks like this, the sailors relied on the appearance of the water to judge their position. Collectively each crew had a lot of sailing experience, and vessels rarely went astray. Nevertheless, Pak Yakob recalled that in that same year, 1955, the perahu on which his father was working, which was supposed to go to South Sumatra, inadvertently sailed to Johore on the east side of the Malay peninsula.

The first vessel Pak Yakob worked on carried ten to fifteen head of cattle, tethered

¹ Interviewed 11/10/2002. For each of the profiles in this chapter, the primary informants are of course the subjects themselves; and any implied ‘ethnographic present’ refers, of course, to the period of fieldwork up to mid-2003.

² See page 164.

³ The use of the honorific ‘Pak’ (‘Father’, or ‘Mr’) is unusual for a man of his position, in the context of Madura. Many eminent older men in Madura these days have made the pilgrimage to Mecca, and thus are referred to by the term ‘Haji’, which implies a higher degree of respect than ‘Pak’. It seems unlikely that such a long-standing and successful local leader as Pak Yakob could not have afforded to make the pilgrimage. If he had undertaken the Haj (and I did not inquire on this) but still preferred to remain known simply as ‘Pak’, this would be very unusual.

⁴ This separation between father and son, working on different vessels, is normal among the Madurese. Traditionally, going to sea was more than simply work: it was also an opportunity to learn about the wider world. Sons would feel uncomfortable working alongside their fathers in such a close and egalitarian community – especially considering the sorts of entertainments engaged in during the long stays in port.

on a removable deck in the hold. Larger *golekan* could carry more than twice that number of cattle, but in those days small vessels predominated. A large hatch was usually left open on either side of the steeply gabled deckhouse roof, for ventilation. Some salt, bought from Sumenep, was carried below in the bilge, while the crew also brought batik from Telaga Biru for sale in Kalimantan. Large amounts of water and grass had to be carried, sufficient to maintain the animals in good condition for the duration of the voyage, a week to ten days. Feeding the cattle was a major chore, keeping the crew occupied intermittently throughout the day. In the closely-confined conditions and with the highly-strung nature of Madurese cattle, moving around among the animals while at sea required care. Especially was this so when giving out water, for the cattle would get very thirsty during the voyage, and sometimes jerk violently in their haste to get at the water. Pak Yakob can attest to the danger of this work, for it was while tending cattle that he lost his left eye, gored by a horn.

After selling the cattle, salt, and batik in West Kalimantan the *golekan* would set out on the return voyage, empty. A round-trip would take between thirty and forty days, with six or more voyages possible before the onset of the northwest monsoon, when the *golekan* would all be hauled up on to the beach, where they would remain until March. Because the southeast wind was directly against them on the homeward leg, the sailors would make in the first instance for Java, before working their way along the coast back to Madura, taking advantage of the diurnal coastal effect upon the prevailing wind. They would break the homeward voyage in Java, usually in either Jepara or Pekalongan to buy rice, but also for rest and recreation. For the latter purposes, Pak Yakob recalled that ‘komplek’ – brothels – were popular with the sailors during these visits, probably the more so because such institutions were (and still are) virtually non-existent in the relatively strict social climate of Madura. Meanwhile back in Madura, the womenfolk whiled away their spare time making batik “so they wouldn’t miss their husbands too much”, as Pak Yakob put it. As a result of these frequent visits to Jepara and Pekalongan, close social ties developed those places and Telaga Biru.⁵

Until the late 1970s, Telaga Biru remained scarcely touched by the social and economic changes taking place elsewhere in Indonesia. The character of the place was still strongly traditional, and the shipping economy provided an adequate living for the local populace. Certainly, there was no unemployment for able-bodied men, with a fleet of about 150 to 200 engineless vessels, according to Pak Yakob, all requiring crews of eight to ten men. There was also, naturally, plenty of work constructing and repairing vessels. Life was materially simple, but generally satisfying. But there were risks attendant upon the sea life.

⁵ Pak Yakob’s grandfather, also a sailor, married a woman in Pekalongan and settled there with her, prior to the Japanese Occupation. When the Japanese took over the couple fled inland, suffering great privations and the death of one of their two children. They eventually settled south of Malang.

Indeed, on one dire occasion in 1963, Pak Yakob himself thought that he was about to meet his Maker. The *golekan* upon which he was crewing was carrying 38 cattle, bound for Pontianak. A couple of days out from Telaga Biru the wind blew during the night with phenomenal force, so that the vessel could only run directly before it, with the mainsail furled and the small foresail set on the short mainmast as a storm rig to enable some degree of control. But just at dawn a huge crest crashed down over the stern of the perahu and blasted through the after doorway straight into the hold, half-flooding the vessel in an instant. Desperately the crew tried what would otherwise have been unthinkable, to jettison their valuable cargo, the cattle; but in the raging seaway they were unable to get any of the terrified animals out of the flooded hold. Other waves washed across the stricken vessel, until at about 7 a.m. it went down, with all 38 cattle still tied up inside. In the last frantic moments someone had managed to untie the *sekoci*, the small canoe-like craft which served as a tender, and which was lashed on the deckhouse roof. As the vessel foundered, Pak Yakob found himself in the water, clinging to the upturned *sekoci*. He was soon joined by two others, one of whom was his younger brother. There was no sign of the other five crew members.

Somehow the three men managed to hang on to the tiny craft, four metres long by just over one metre wide. It had been bought in Pontianak, with an extra plank added to increase its capacity – a most fortunate modification. Eventually the seas moderated to the extent that the men could bail it with their hands and flip themselves into it. They were alive, but their situation was acutely precarious. They had no food or fresh water, no sail or paddle, there was no land in sight, and the prevailing wind would take them further out to sea. After drifting helplessly in heavy seas for two days and nights, bailing frequently, the man who was not Pak Yakob's brother suddenly pitched himself into the sea, and drowned. For two more days, Pak Yakob and his brother drifted. Then, on the fifth day they saw a vessel, a *golekan*, in the distance. It was headed away from them, but then the southeast wind died away and a gentle breeze set in from the northeast, induced by the warm air rising over Java to the south. The *golekan*, which as it happened was from Telaga Biru and had left Jepara that morning, was forced to tack; and in the light conditions was carried by the sea breeze directly to the little *sekoci*.

After their miraculous rescue and return to Telaga Biru, Pak Yakob's brother was reluctant to go back to sea, and it was one month before he joined another vessel. But Pak Yakob was unconcerned after his ordeal, and joined another perahu within a week of his return. "I wasn't afraid", he said, "because I knew it was God who had saved me... God did not want me to die yet."

Perhaps it was this sense of being marked out among his peers that led Pak Yakob to stand as *desa* head in 1974. Certainly, his role in that position was to be distinguished by an

uncommon economic leadership. At that time, a few large vessels of non-traditional type were being built at Telaga Biru, for carrying timber to Surabaya. Pak Yakob reasoned that timber could be sold at Telaga Biru, and encouraged local entrepreneurs to set up in business as timber importers, allowing them to build warehouses along the port foreshore. The timber business at Telaga Biru was moderately successful throughout the 1980s; but during the 1990s, after the authorities had clamped down on illegal timber shipments to Surabaya and Gresik, it boomed. The end of large-scale illegal shipments to Surabaya and Gresik had left a clear market advantage for the Telaga Biru importers, none of whom were bothering to obtain permits for their cargoes.

In this advantageous economic situation, Pak Yakob himself became the principal organizer of the local timber trade, liaising with all the relevant officials to ensure that everything ran smoothly. He was well aware of the legal requirements for transport permits, and that these were not being fulfilled: "It was 100 percent illegal... Of course they [officials] all knew it was illegal, but they just looked the other way." Any bribery occurring at this stage was on a small scale. "Everything worked well during Suharto's time", he said. "There was no problem until Habibie became President".

Nowadays, with *Airud* police and the Navy demanding 100 percent compliance with the timber transport regulations, those heady times of the 1990s seem remote. Pak Yakob is bitter about the severity of the crackdown on the timber trade on Madura, not only toward the central government, but also toward the regional government. In particular, he feels that the *kabupaten* administration, based in Bangkalan, has done nothing to help the people of the north coast.

While his concern for the ordinary people of Telaga Biru, now severely deprived of employment opportunities, was obvious, it seemed that for Pak Yakob himself the economic malaise had another aspect: not only was Telaga Biru a much less prosperous place than it had been just a short time earlier, it was also less vibrant. Although still vigorous and physically fit, he was poorly suited to be effective in, and gain personal satisfaction from, the greatly changed political and economic conditions now prevailing. He had been in his element in the recent past, when the traditional characteristics of individualism and self-reliance were still paramount. Significantly, he made no reference to the possibility that Telaga Biru's current economic woes could have been alleviated if its entrepreneurs had all stood together, as at Sepulu. But for that to have happened, a different sort of leadership from that which Pak Yakob could offer would have been needed.

*Haji Rofi'i*⁶

One who was able to offer such leadership was Haji Rofi'i, the head of the *desa* of Prancak, at Sepulu. In contrast to the affable and garrulous style of Pak Yakob, Haji Rofi'i's manner is urbane. He is about forty years of age, a large man but not overweight, articulate with excellent Indonesian language, and a good listener as well as a good speaker. He is a man for the times, able to devise and present constructive arguments and plans for the future, and who seems as though he could be as comfortable and effective in parliament in Jakarta as he is in his local office. Unlike the traditional notion in Java and Madura that 'knowledge is power' – and therefore should be dispensed as sparingly as possible, to retain the difference between the one who knows and those who do not – Haji Rofi'i believes in informing the public. He brings this style to the *desa* office at Prancak, which has an unusually friendly atmosphere for such a place, with copies of the daily newspaper, delivered from Surabaya, available for anyone to read.

Visiting Haji Rofi'i at his house, it is apparent that he is wealthy. His house, built only recently, is said to have cost one billion rupiah, a huge amount in the local economy. It is sprawling but elegant, with large ceramic-tiled verandahs and only a single storey, eschewing the usual aspirations of the new rich in Indonesia to vaunt their success through the medium of a showcase multi-storied dwelling.

Haji Rofi'i seems, at least for many locals, to be one of those rare individuals for whom everything goes right. He had a good family background, being the son of the former long-time *desa* head, Haji Nur Habib, who died in 1998. As well as his income from his position as *desa* head, Haji Nur Habib was a very successful maritime entrepreneur. According to a popular – and apocryphal – local story, Haji Rofi'i's phenomenal good fortune derives from a talisman, a red stone, which formerly belonged to his father. According to the story, many years ago his father, Haji Nur Habib had a dream about a bird excreting a red stone. He related this to one of his crew, who replied that he too had had the same dream. Some time later, this crew member happened to see, to his astonishment, a bird pass out a red stone. He at once picked the object up, and remembering the dream and that his boss, to whom he was much indebted with gratitude, had had the same dream, he brought it to Nur Habib and gave it to him. From that day the father, and in turn the son, were blessed with good luck.

As a young man Haji Rofi'i was fortunate enough to receive a thorough education, studying at an Islamic college in Java. Then he was fortunate in marriage, for his bride was none other than the daughter of the richest man in Sepulu, who had made his wealth from fish trading. Haji Rofi'i went into fish trading himself. He was not afraid of hard work, and

⁶ Interviewed 10/2/2002, 17/10/2002.

went to sea in his own *golekan* on extended voyages, buying fish from vessels at sea off Masalembu and the Sembilan islands, near the coast of South Kalimantan. The fish would be salted down at sea, and on return to Sepulu would be set out to dry for one or two days before being trucked to Surabaya.

When fish wholesaling started to decline in the early 1980s as entrepreneurs from Kalimantan became involved, Haji Rofi'i turned to copra, buying this commodity in Central Kalimantan and selling it in Madura. Unfortunately at that time the local copra market was being flooded by copra from nearby Bali, so after only one year he gave up on copra to try his hand in the timber business. The timber business in Sepulu was at that time on a modest scale only. Haji Rofi'i did not own a sufficiently large vessel himself, but worked as skipper on one of his father's vessels, and also set up as a timber trader.

At the time of his death in 1998, Haji Nur Habib owned five working vessels, all of which were inherited by his son. Haji Rofi'i was then the biggest timber importer at Sepulu, and the following year he was elected as the head of Prancak *desa*. He brought sound leadership, and was the driving force, together with his colleague Haji Komar in the neighbouring *desa*, behind the Sepulu Businessmen's Association, which ensured the survival of the local timber trade after the government clamped down on illegal timber imports and revenue evasion on Madura.

As well as proving himself an able administrator and businessman, Haji Rofi'i is also a seaman, and has moreover a sound understanding of the principles of design and machinery for engine-powered vessels. Unlike most Madurese perahu owners, he can talk easily, with knowledge derived from experience rather than manuals, on matters of propeller diameter and reduction gearboxes and their influence on performance. This thoughtful approach was evident in his new vessel, *Gunung Mas* ('Golden Mountain'), which was launched in mid-2002: the hull was of modern type based on the vessels of Bagansiapiapi in Riau, with sharp entry, full-bodied 'ship-form' mid-section, and broad stern,⁷ and the engine an eight-cylinder ex-truck Nissan RD8, with a 1:4 reduction gearbox.

For all his good fortune and intelligent approach, however, Haji Rofi'i knows well that fate can deal a rough hand to maritime entrepreneurs. By early 2002 two of the five vessels which he had inherited from his father had been lost. One had caught fire and was gutted in port at Sepulu, under circumstances not known; while the other, an old vessel which was a chronic leaker, sank in heavy seas in February 2002 near the western entrance to Madura Strait. Fortunately, the crew was rescued. These losses were significant setbacks, but an entrepreneur of Haji Rofi'i's resources could weather them. Then, in December 2002,

⁷ In contrast to the relatively blunt bow, fine stern, and slack mid-section shape of the traditional *golekan*. The new model enables greater carrying capacity coupled with increased efficiency under engine power, especially in rough conditions.

on only her third voyage, *Gunung Mas*, the pride of the Sepulu fleet, sank due to fire. Worse still, this catastrophe occurred on the homeward leg, resulting in the loss of around 200 cubic metres of timber. The fire occurred within sight of the coast of Madura, and the crew, in the water, were saved by a local fishing craft.⁸

The cause of the fire was not clear. What was known was that when the vessel was just a couple of hours away from Sepulu, the engine had stopped because the fuel tank had run dry. The situation was not serious as sufficient fuel was carried, in a separate drum, and in due course fuel was flowing again and the engine restarted. But about an hour later, one of the crew noticed smoke coming out of the hold, completely filled with timber. The men started to lift the large and heavy hold hatch, and were met by a conflagration which was hopelessly beyond their capabilities to control – especially as there was no fire extinguisher on board. The end was inevitable. The skipper was so stricken with shame and remorse that he left Sepulu shortly afterward to seek work in Malaysia. I do not know if Haji Rofi'i blamed him, but it would have been very difficult, socially, for the unfortunate skipper to remain in Sepulu under the circumstances. For Haji Rofi'i, the sinking of the *Gunung Mas* was a massive blow, as neither vessel nor cargo was insured, and his personal loss would certainly have been in excess of Rp 200 million.

The lack of any insurance may seem odd by contemporary standards elsewhere, but it is absolutely normal for this class of shipping. But leaving the matter of insurance aside, this accident should not have happened. In the first place, the fuel tank should not have been allowed to run dry, especially with the resulting complication of having to bleed the fuel line. Perahu do not usually have fuel gauges, with the crew relying instead on experience and manual or visual checking of the fuel level, but that is no excuse for running out. Second, it seems obvious that something amiss occurred during the topping up and fuel line bleeding process. Cargoes of timber do not ignite spontaneously at sea, and diesel engines, having no spark, are not a significant fire hazard. Apparently there was no petrol auxiliary, such as are sometimes used for lighting in port, running at the time. Whatever the cause, it is difficult to avoid the conclusion that human error and carelessness were factors. Perhaps if Haji Rofi'i had been the skipper, nothing untoward would have happened. But his methodical approach is the exception in West Madura, where one can still observe amazingly lax attitudes, which would not be tolerated in Australia or Europe, toward safety.⁹ And clearly, there should have been a large dry powder or carbon-dioxide fire extinguisher on board.

⁸ I had been invited by Haji Rofi'i to travel on *Gunung Mas* for this voyage, but in the event I did not take up the offer. On returning to Sepulu and knowing nothing of the loss of the vessel, I was surprised to be greeted by a friend with the comment, "You were lucky you didn't go along, you would have lost all your papers!"

⁹ For example, on the south coast of Madura I have seen a team of men working on a boat, up to their waists in salt water – with a live electric lead, used to power a drill, trailing from the shore through the

*Haji Matsahri*¹⁰

Haji Matsahri is a highly respected perahu operator of the *desa* of Sreseh, on the south coast. He is in his late fifties, a tall, lean man, physically tough and still able to pull himself up the flaring sides of an empty perahu, riding high in the water, by a rope. He presently owns one medium-sized vessel which brings him a good living. He is one of the wealthiest people in the local community, but his wealth is modest compared to that of Haji Rofi'i. He is devoutly religious, but despite his own strict observance of the tenets of Islam he is tolerant of others who do not maintain such standards.

He was born in the hamlet of Batuputih, Sreseh. His father, Haji Hotip,¹¹ was originally a fisherman from the neighbouring village of Labuan, about nine kilometers away, who married a woman from Batuputih. As is usual in Madura, the young husband relocated to live with his wife's parents, working as a fisherman from his own *sampan*. After a few years of hard work and frugal living, he managed to buy enough timber to build a small *janggolan*, and he hired a man from Batuputih, Haji Umar, to help in the work. The vessel was of modest size, in keeping with her owner's means; but she was extraordinarily graceful, for Haji Umar was a superb craftsman. Haji Hotip gave her the appropriate name of *Si Baru Dateng* ('The Newcomer') (Photo 32).

With *Si Baru Dateng*, Haji Hotip prospered from the shipping of salt, and built a second small vessel, *Bintang Samudra* ('Star of the Sea'), again employing Haji Umar to help with the construction. He then built another vessel, *Baru Hidup* ('Newly Living'); but on its maiden voyage this vessel, heavily laden with salt, encountered rough weather coming out of Sampang and sank after a wave washed over the side and into the hold.¹² The vessel was recovered without major damage at low tide, but the cargo of salt had of course dissolved. Haji Hotip was not liable for the loss of the cargo, which had to be born by the salt owner, the then head of the *desa* of Pangarengan, on the eastern side of the Blega estuary. Nevertheless, he sold *Baru Hidup* immediately after this incident, fearful that the vessel might be unlucky.

From the proceeds of this sale Haji Hotip then built a much larger vessel, *Kota Mesir* ('City of Egypt'), which was subsequently used to carry salt to West Java. He later exchanged this for a smaller vessel, *Sinar Jaya* ('Glorious Glow'), with a cash payment to make up the difference; and from these proceeds, built another two vessels, *Fajar Islam*

water to the vessel. The lead was moreover only intended for light domestic duty, with no earth wire. The men were aware of the risk, as I heard one (in the water) remark jokingly to his workmates about it.

¹⁰ This profile draws on numerous personal communications between 1998 and 2002.

¹¹ He was not then a Haji, as he had not made the pilgrimage to Mecca. Such an expensive undertaking would normally be beyond the resources of a young small-scale fisherman.

¹² Small *janggolan* for use in Madura Strait only were usually undecked forward, to facilitate the loading and unloading of salt (see Photo 15, page 102).



Photo 34: *Si Baru Dateng* at Sampang, in 1983. The bowsprit is carved to the very tip.

(‘Dawn of Islam’) and *Bunga Bhakti* (‘Loyal Flower’), of 65 and 120 tons capacity respectively. *Bunga Bhakti* eventually became the best-known vessel of the entire *janggolan* fleet, and brought considerable prosperity to Haji Hotip and his family, from both the salt and timber trades. Haji Hotip spent most of each sailing season in Kali Baru, Jakarta, where he eventually set up with a second wife, a Sundanese woman, in a relationship which was never fully accepted by the rest of the family. He traveled a great deal on buses in Java, for business purposes. He built three more vessels, all of moderate size for the salt trade to Pasuruan, and named them after bus companies which he used for his journeys to and from West Java: *Maju Makmur* (‘Prosperous Progress’), *Sari Indah* (‘Beautiful Essence’), and *Sinar Hati* (‘Glow of the Heart’). All these vessels were *janggolan*, for the *sepel* model had not yet been introduced at Sreseh.

Haji Hotip’s eldest son, Daruji (later to become Haji Matsahri), thus grew up in a milieu steeped in boatbuilding, seafaring, and trading. From an early age he was lending a hand in vessel construction, learning from his father and the peerless Haji Umar. He left school at twelve years of age, with no further formal education, and worked around the place helping his father until as a young man he started work fulltime as a boatbuilder. He later went to sea on some of his father’s vessels, but never as a fulltime skipper. Instead, he set up on his own behalf, buying a vessel, *Bintang Timur* (‘Star of the East’), from Pangarengan. He repaired and enlarged this vessel, and operated it himself for one year, before selling it to

a man from Pamekasan. The purchaser took the vessel on a 50 percent deposit, but then unfortunately became involved in an expensive divorce proceeding. Unable to meet his commitment, he abandoned the perahu in a creek at Gresik Putih, near Kalianget in Sumenep. Haji Matsahri later hired a motor perahu, at considerable expense, to tow his vessel all the way back to Sreseh. He knew it was a waste of money to do this, for the vessel was then filled with mud and in a sorry state; but it was his first perahu, and his heart was heavy for the vessel itself, a thing he had created with his own hands. "It was only like that that I could have peace of mind", he related. *Bintang Timur* was laid up in Sreseh, and never sailed again.

Haji Matsahri continued to operate successfully as a salt trader, becoming an agent liaising between salt producers and perahu owners, and buyers in Pasuruan and Surabaya. Eventually he saved up enough to build a large vessel for himself, *Ibu Dana Besar* ('Mother of Great Wealth', but usually referred to as just *Dana*), in the early 1990s. He used this in the Kalimantan timber trade, importing timber to Pasuruan, and after a successful year established his own timber warehouse, with his eldest son Marthawi as resident manager. In 1997 he sold *Dana* to a man from Sepulu,¹³ and then built his latest vessel, *Sumber Makmur* ('Source of Wealth').

Although boatbuilding is a secondary occupation for Haji Matsahri (being at heart a trader, in the Madurese tradition), he takes his vessel building work seriously. As a senior shipwright he employs a gang of assistants on a job, but he works at least as hard as anyone else in the team, and it is he who makes all the decisions which define the form and character of the vessel. He has a reputation for integrity as a builder, with his vessels fetching higher prices than those built by others in his area. But although he enjoys the challenge of building, for him such work is a means to an end rather than an art form, and he readily admits that his craftsmanship is not in the same class as that of his mentor, Haji Umar. Indeed, with the increasing emphasis on economic rationalism in vessel construction since the late 1970s, it is unlikely that anyone in Madura will ever again reach the standard of Haji Umar's workmanship.

Haji Hotip, died in 1999, aged 74. He had risen from humble beginnings to become the most successful perahu operator in the Sampang area; and as well as Haji Matsahri, his second son, Haji Zaini (now living in Pasuruan), was a very successful maritime entrepreneur, at one time owning four *janggolan*. But by the time of his death Haji Hotip's fleet had dwindled to just one vessel. *Bunga Bhakti*, regarded as virtually a member of the

¹³ *Dana* was substantially enlarged by her new owner, Haji Farouk of Sepulu (who owned two other perahu), to carry over 200 cubic metres of cargo. But in January 2002, with Haji Farouk's son Haji Rudi as skipper, the vessel sank in rough conditions off Probolinggo in Madura Strait and was a total loss. All the crew were saved.



Photo 35: *Bunga Bhakti* surging along on a broad reach, bound for Beliton.

family, had been lost after running aground in the Karimun Jawa islands a few years earlier, and several other vessels were thereafter either similarly lost, or sold. Only *Sinar Hati* survived, used by Haji Zaini for his own timber business in Pasuruan, with the freight profits from the vessel going to his mother, the family matriarch. Nevertheless the family was well-established, with the two eldest sons successful entrepreneurs in their own right, and a compound of family dwellings in the traditional manner at Batuputih.

The main dwelling in the family compound, now occupied by Haji Matsahri and his wife and children, was however somewhat dilapidated. The bamboo mat ceiling was damaged in places, with roof tiles visible through the rents, and the thin concrete floor was badly cracked and chipped away. Just ten years earlier such less than pristine condition would have been of no consequence provided that the dwelling was serviceable, but since then so many people in Sreseh have built ostentatious houses with earnings from Saudi Arabia that those families owning older houses have felt left behind. Haji Matsahri said to me in 2001, “Just look at this place [the interior of his house] ... I feel ashamed whenever guests come”. Although he had never coveted high social status, he was by then aware that he was widely looked up to as a successful entrepreneur and a pillar of society, with all six of his children having been educated in *pesantren*, and two now working in Saudi Arabia. With the sumptuary standards in the community having risen, it was appropriate for him to build a new house commensurate with his social standing.

This social pressure was too much to resist, and by early 2003 Haji Matsahri did have a new house under construction, just across the road from his existing one. The brick walls of the new dwelling are four metres high, to give relief from the heat, and in stark contrast to the traditional low picket or bamboo lath fence, the enclosure is set off in the front with an impressive 1.5 metre high barrier fashioned from 75mm diameter stainless steel pipe, a type of structure popular with the wealthier families of Sepulu. The house is divided into two separate living quarters, one for Haji Matsahri, and the other for his eldest son Marthawi, who for the past few years has been living with his wife and children in cramped quarters at the back of the Pasuruan warehouse.

Although the house was still far from finished in early 2003, it was clear that Haji Matsahri was enjoying the prospect of the comfort and prestige that it will provide. But he never takes his prosperity for granted, and is keenly aware of the vicissitudes of maritime entrepreneurship. Indeed, in 2002 a vessel which he had built for his younger brother, Haji Cholil, was lost due to fire only a few months after its launching, a financial disaster not only for Haji Cholil but also for his other brother Haji Zaini, who as ‘timber boss’ lost a consignment worth Rp 25 million.¹⁴ Despite this calamity, Haji Matsahri has not installed a fire extinguisher on his own vessel. But he does have plans to raise the freeboard to increase the carrying capacity. And every year at the *Ketupat* festival, held one week after the end of the fasting month, an occasion when livestock and vessels are feted, he arranges for the local *kiai* to come on board and bless *Sumber Makmur*, and say prayers for her continuing safety and bountifulness.

*Pak Sum*¹⁵

Pak Sum is a perahu owner from the *desa* of Gedugan, in the northeastern part of Giligenting. He is a small wiry man about 70 years old. Although everyone around him refers to him only as Pak Sum, Sum is not his real name. Rather, it is the abbreviated name of his first-born child, his eldest daughter, Sumaniyah. ‘Pak Sum’ thus means not ‘Mr Sum’, but rather ‘Sum’s father’. This self-effacing teknonymic term of address is traditional in Madura, although it was never used for important persons such as *kiai*, officials, or local leaders.¹⁶ Pak Sum is, then, a ‘little person’. None of his five children were educated in *pesantren* – “it would have been great, but where would the money have come from?” – and

¹⁴ This vessel, on only its sixth voyage, had just finished loading timber at Marabahan, on the Barito river, in April 2002. Although the precise cause was not clear, the fire started in the early evening after a small petrol-powered generator, used for lighting in port, was started up on the deck. According to reports, the deck burst at once into flames. There was no fire extinguisher on board.

¹⁵ Interviewed 8/7/2003.

¹⁶ In cases of officials referred to as Pak (or Bapak), the term is used to convey respect, and not as a teknonym. Although teknonymic address is still very common in rural Madura, it is not much used nowadays for people of less than middle age.

of course to make the pilgrimage to the Holy Land is for him just a dream. Yet while he knows his place in society, as an ordinary householder, he is in his own unassuming way remarkable, the sort of person for whom the phrase ‘salt of the earth’ is particularly apt.

Pak Sum’s house is situated away from the coast. There is a large strand village at Gedugan, with many transport vessels and fishing boats operated from there, but he lives about two kilometres inland in a tiny hamlet called Ragang. The sea is not visible from Ragang. Surrounded by small maize fields and coconut palms, the hamlet appears to be purely agricultural. But the agricultural economy on Giligenting has always been marginal, and Pak Sum has for most of his adult life looked to the sea to supplement his earnings from the land. The dispersal of his own children is a testament to the seafaring way of life on Giligenting, for of his five children, only Sum remains on the island, in the same family compound at Ragang. The others, two sons and two daughters, have all moved away, not to the city of Sumenep or even the mainland of East Java, but to distant Cirebon in West Java. Cirebon has long been an important port for Giligenting vessels, and as a result a substantial expatriate community from the island has become established there. Both of Pak Sum’s sons were formerly perahu sailors, as were the husbands of his two daughters. None of his family in Cirebon work as sailors any longer, however, with all of them now relying instead on the *warung* (food stall) trade for their livelihoods.

Pak Sum started going to sea during the 1950s, on *letelete* carrying salt from Madura to ports in West Kalimantan: Ketapang, Pontianak, Singkawang, and Pemandaran.¹⁷ The salt was loaded not only from nearby Kalianget, but also from Prenduan in Pamekasan, and Sungai Rajo (the Blega estuary). The boats in those days were mainly of modest size, typically carrying about 35 tons of salt. As well as salt, the vessels Pak Sum worked on often carried horses from Bima, on the island of Sumbawa, and Ampenan in Lombok, to Pasuruan or Tegal. The boats could carry 25 to 30 horses,¹⁸ and would reach Pasuruan in six days or Tegal in eight. By comparison with Madurese cattle, with their skittish nature, the horses were easy to manage. “Those horses just walked straight up the [gang]plank and on board, as if they were used to it”, he said. This trade in horses dried up after the 1950s, while the salt trade lasted until the 1970s, but by that time timber was already an important cargo.

Unlike the vessels from Telaga Biru, which would return home several times during the sailing season, the Giligenting vessels were usually away for the duration of the southeast monsoon. Communications with home were tenuous. There were no telephones then on Giligenting, and since many of the sailors were barely literate, letters were rarely used. Such

¹⁷ Locations of these places are shown on Map 7, page 91.

¹⁸ These horses were smaller than the standard European breed of horse. They were used for pulling small carts (called *dokar* in Madura) for the carriage of passengers and goods. This method of transport is still very common in Madura, and in outlying parts of Java.

news as was conveyed was usually by word of mouth from any sailor who happened to come back during the season. Only rarely were such tidings sorrowful, however, because the *letelete* were seaworthy and the crews hardy and agile.¹⁹ In those days none of the vessels carried compasses or charts, but they usually reached their destinations without problem, relying on crew experience and the major landmarks of the Java Sea. The main danger was sailing close to land, or small islands, at night time.

Indeed, Pak Sum has himself twice experienced shipwreck during the hours of darkness. The first occasion was in 1983, when the *letelete* he was crewing on ran aground on a small and uninhabited sandy islet to the north of Cirebon, with a full load of timber. It was five days before they were rescued, but the vessel was intact, albeit unuseable, and they had water and rice on board. The second shipwreck occurred in 1986, when he was sailing on a *letelete* bound for Airhitam, to the west of Sukamara in West Kalimantan. Sailing fast before the southeast wind, the empty vessel smashed ashore in the dark on one of the Karimun Jawa islands, and was totally wrecked. In another incident in the family, Pak Sum's elder brother was also wrecked at night time: en route from Pasuruan to Madura with a load of bagged cement and concrete blocks, the vessel crashed into a reef off the island of Mandangil, south of Sampang. In all three of these wrecks the crews were saved, but in 1993 a *letelete* skippered by a man named Sahut left Giligenting and was never heard of again – “maybe run over by a ship, maybe hit a rock... who knows?” said Pak Sum. Similarly, in 2001, a motor vessel from Giligenting left Kumai with 21 passengers and a cargo of timber, bound for Java, but no trace was ever found of the vessel or people on board. Such stories are fortunately rare, however, and Pak Sum is of the view that the new vessels, with at least a modicum of navigational equipment – a compass and a chart – and an engine are, all things considered, safer than the vessels of the past.

Despite his many years at sea, it was only in 1997 that Pak Sum became a vessel owner. Lacking both the capital and practical skills to build a new one himself, he bought a second-hand vessel, *Sumber Rezeki* (‘Source of Wealth’), which had been built in Giligenting in 1978 as a *letelete* and subsequently modernized with a larger aft deckhouse and a sloop rig. Being engineless and rather old at the time, it was not very expensive, especially because with a capacity of only 120 cubic metres of timber it was considered too small to be profitable without a trading interest. Pak Sum lacked the capital to become involved as a trader, but he knew a man on the north coast of Madura who wanted to invest

¹⁹ From a modern ‘western’ perspective, one might expect that accidents might occur when furling the mainsail, as this involves several men climbing up the long and steeply sloping main yard while the sail is flogging in the wind. But my frequent inquiry as to whether any one was known to have fallen while doing such work was always answered in the negative. One is reminded, in this respect, of the words of G.W. Earl, who had considerable experience sailing with Javanese crews on European ships. Earl had a high opinion of the Javanese sailors, and stated that in their agility aloft they were “inferior only to monkeys” (1971 [1937]: 84).

in importing timber, and who trusted him. Although his return from freight only on a vessel of this size is less than most younger men would accept, for Pak Sum it has been adequate as he already has most of the material things that he needs. Indeed, frugality is a way of life for him. With this philosophy he has never been tempted to install an engine. He knows little about engines anyway, and the vessel is too old to warrant such an additional investment which would have reduced rather than increased his profits.

His perahu venture was so successful that two years later, in 1999, he bought another vessel, *Dharma Bhakti* ('Loyal Duty'). This vessel, slightly smaller than his first,²⁰ had been built on Sapudi, but was later bought by a man from Galis, on Giligenting. Again, before buying this vessel Pak Sum discussed the matter with his timber boss, who in the event was keen to expand his own business. Two years later *Dharma Bhakti* was arrested with a load of undocumented timber, and towed to Kalianget. The vessel was later released but the skipper, Pak Tolak, who is a nephew of Pak Sum, spent three months in prison as a result of this affair.²¹ Perhaps as a result of this experience, Pak Tolak, who is in his forties, no longer goes to sea, with his place (although not as skipper) being taken by his sixteen-year-old son.

During the northwest monsoon both of Pak Sum's vessels return to Giligenting. The most popular place around the island for sitting out the wet season is along the main beach at Gedugan, but Pak Sum's vessels lie over at an isolated spot on the other side of the Gedugan peninsula, facing to the southwest.²² It is an inconvenient place and not used by any other perahu, as the coast there is littered with coral outcrops, and the beach is harsh and full of broken coral, unlike the sandy beaches around the greater part of the island. But it is only about ten minutes walk from Pak Sum's house, and he can attend to much of the maintenance work himself. It is also a safe haven against the worst of the weather during the northwest monsoon.

Life is uncomplicated in Pak Sum's hamlet, but it is no idyll. His house is adequate but basic, with virtually no modern conveniences as there is no electricity. The family still uses kerosene pressure lamps for lighting, and everyone goes to sleep early. There is a well, which is always a blessing to have in rural Madura, although the buckets have to be drawn up by hand as there is no pump.

Although he no longer goes to sea, Pak Sum has certainly not retired from active work, and nor does he have any intention of doing so while he is physically capable. His elder sister (Pak Tolak's mother), who is a widow and lives in the same household, suffers from Parkinson's disease, but Pak Sum himself appears very fit. The physical work around

²⁰ The new vessel has a registered gross tonnage of 41, compared to only 12 for the older and slightly larger vessel. This anomaly is because *Sumber Rezeki* had been considerably enlarged, but the vessel's measurement certificate was not altered as it should have been.

²¹ The case referred to on page 184.

²² See Map 9, page 107.

the place and a sparse diet keep him trim. During the dry season, when his vessels are away, there are no crops grown, and the fields around the house are filled with withered cut corn stalks, to be burned later and the ash used as fertilizer. (Chemical fertilizers are little used in Madura as they are too expensive.) But there are two cows to be cared for. The cows are kept in a stable alongside the house. Pak Sum does not own them; rather, he looks after them for the owner, and later, when the animals are sold, the profits are shared between him and the owner. Cutting fodder for the cows is a major chore, especially during the dry season when the animals cannot forage for themselves near the house. Pak Sum does this work himself rather than delegating children who might not be so diligent with this important task as he is. He makes sure that the cows do not go hungry or thirsty, as the healthier and bigger they are the better his return will be. Cattle-rearing, the traditional standby for rural Madura, has always played a vital role in his household economy. He has his two vessels (which were largely paid for in the first place through cattle-rearing), but one never knows what might happen at sea.

He cuts the grass from places well removed from the house, squatting and crawling around while using the ubiquitous agricultural tool of Madura, a sickle; and when he has gathered a large enough pile, he ties it in a huge bundle to carry back home on his head. Few outsiders, if they were to see him working away briskly like this, would guess that he is the owner of two perahu engaged in the Kalimantan-Java timber trade. But with his diligence, thrift, and self-reliance, Pak Sum represents the very qualities which have made the Madurese such a force in indigenous shipping in Indonesia.

*Haji Amir*²³

Haji Amir Hosein, a vessel owner from the small town of Gayam, on the island of Sapudi, is the most successful maritime entrepreneur in all Madura. He owns five vessels, which may not sound like many, but they are all quite large. As it happens, probably the second most successful vessel owner in all Madura is also from Gayam: his friend Haji Ariyono, a dapper local official who owns three large vessels with another half-built. There are many more vessels on Giligenting than on Sapudi, and a few owners there with three and four vessels to their names, but in terms of tonnage these two entrepreneurs from Sapudi are in a class of their own.

In contrast to the style of most wealthy people in Java, and now also in parts of Madura, especially the north coast, there is nothing about Haji Amir's person or manner which suggests that he is an outstandingly successful businessman. His house (like that of Haji Ariyono) is comfortable and well-appointed, but not at all ostentatious, and he does not

²³ Interviewed 25/1/2003.

own a car. A robustly built man in his early sixties, he speaks in a steady, direct manner, and perhaps the most remarkable feature about him, as becomes apparent after listening to him for some time, is the objectivity and dedication of his approach to his shipping business.

It is little surprise to learn that Haji Amir's late father was a perahu operator, owning a 50-gross ton *letelete* – large for the type – called *Jindrawsih* ('Bird of Paradise'). But his grandfather was a farmer, while his younger brother was a teacher, now retired.²⁴ When his father died, Haji Amir, as the seafaring son, inherited his vessel, and he acknowledges that this start was vitally important to his later success.

With the profits from his operation of his father's vessel, Haji Amir built a vessel for himself on the beach at Gayam in 1977, giving it the rather prosaic name of *Nusantara Bahari I* ('Maritime Indonesia I'). This was also a *letelete* hull, but unlike *Jindrawsih*, which was a pure sailing vessel, it was equipped with an engine. This vessel was followed over the next few years by three more: *Nusantara Bahari II*, *Nusantara Bahari Bersama* ('Our Common Maritime Indonesia'), and *Madura Bahari Bersama* ('Our Common Maritime Madura'). These names were too awkward for conversational purposes, and the last-mentioned, for example, has been throughout its life referred to colloquially as *Merpati* ('Dove'). Again, these vessels all had the traditional *letelete* hull form, but were powered by engines only. The decision to do without the sailing rig was in part because of their sheer size: *Merpati*, for example, carries 400 cubic metres of timber. At this size the *letelete* rig, in its standard proportions, would require an enormous main yard and would be almost impossible to handle safely.²⁵

While these vessels all gave satisfactory performance, over the next few years after the launching of *Merpati*, Haji Amir began to consider the merits of the so-called *pinis* hull form used by the Bugis. In particular, he thought that the *pinis* hull shape, with its relatively drawn-out bow and stern, had the advantage of needing less strongly curved and twisted planks toward the ends than did the fuller-ended *letelete*. For a given capacity, it should therefore be more economical to build than the *letelete*. Haji Amir was in this respect on his own, as at that time no one else on Madura had emulated the *pinis* form. Certainly a few large non-traditional vessels had been built at Telaga Biru, but these were based on the standard small wooden motorships of the *Lokal* fleet, rather than the vessels used by the Bugis. In his own words, "I was learning, and thinking for myself."

²⁴ Haji Amir's brother, Haji Muhammad Rasyid, is the father-in-law of the present head of the *desa* of Gayam, Imran Rasyidik. The latter, who is in his thirties and university educated, does not own any vessels, but his father was formerly a leading local shipowner, with four large *letelete* of between thirty and forty gross tons.

²⁵ Such a large vessel could however be manageable with the European-derived gaff ketch rig used by the Bugis.



Photo 36: *Merpati* at Semarang.

His thoughtfulness in this respect is evident from the approach to his next vessel. Generally speaking, if a *Rakyat* vessel owner wishes to build a vessel of a new model, he simply instructs his workmen to achieve the desired shape, as best they can. But not Haji Amir. When he had acquired sufficient capital, he imported a load of ulin timber from Batulicin in Kalimantan, in preference to the usual teak from nearby Kangean. He then traveled to Banjarmasin, where he engaged an experienced Bugis shipbuilder, one Pak Mahasar. He chartered a very small aircraft to take him and Pak Mahasar to Kota Baru in South Kalimantan, and from there they traveled by speedboat to Batulicin. For a whole month he observed the shipbuilding at Batulicin, and discussed at length with Pak Mahasar the advantages and disadvantages of different styles of vessel. When he was satisfied about what he wanted, he traveled back to Sapudi, bringing Pak Mahasar with him, and set about building his new vessel. It looked like a *pinis*, but the mid-section was more like that of a *letelete*, with relatively little deadrise (or 'vee-shape' in the lower part), and thus a better form for cargo work. Nor was it built in the same way as a *pinis*. The Bugis teams in Kalimantan bend the planks around prefixed frames with brute force, using clamps and chains,²⁶ but Haji Amir's team, under the supervision of Pak Mahasar to ensure the desired shape, built the hull shell-first with the planks pre-bent to shape over fire, in the Madurese

²⁶ This was not the traditional approach to building in South Sulawesi, where builders hewed short baulks of timber to achieve the desired plank shapes, and assembled the hull shell-first (see Horridge, 1979b). This method of construction is still used in South Sulawesi. Vessels built this way are adequately strong for normal use, but in large sizes they are very vulnerable to hard grounding.

tradition. Similarly, rather than the flush deck preferred by the Bugis (and now also by builders of new vessels at Giligenting), Haji Amir retained the raised deck structure common to Madurese perahu.

This new vessel proved very successful, and was eventually followed by three more built along the same lines. With his shift away from the traditional style of hull, Haji Amir apparently felt less constrained in his choice of names for his new vessels, naming them, in order of construction, *Bandung Madura* ('Partner of Madura'), *Garuda Madura* ('Great Bird of Madura'), *Tanjung Barcelona* ('Barcelona Point'), and *Teluk Bayur* ('Bayur Bay', *bayur* being a species of tree).²⁷

His latest vessel, *Teluk Bayur*, with an expected capacity of 800 cubic metres of timber, was still being fitted out in 2003. Again, in the construction of this vessel, Haji Amir showed an uncommon thoroughness of approach. Because of the large size, and especially taking into account the installation of the engine, he decided to build it at Gresik Putih, Kalianget, rather than on Sapudi. He recruited a team of workmen from Sapudi, and brought them to Gresik Putih, where they lived under a tarpaulin shelter. In early 2003 they had been living like this for 18 months. Haji Amir did not stay with them, of course, having plenty of other matters to attend to. But with the hull and deck finished, the vessel was towed to Kalianget harbour for fitting out. Haji Amir then moved into a cheap hotel in Sumenep in order to oversee the work, spending all day long, every day, at the vessel. He expected that he would be involved like this for at least three months.

The capital outlay for this large vessel was expected to come to between Rp 600 and 700 million. This is a lot of money, but for the capability of the vessel it is cheap, and significantly less than it would cost if built in Kalimantan. According to Haji Amir, to build a hull with a capacity of 500 cubic metres, a Bugis team would use 100 cubic metres of timber, whereas he would require only 75 cubic metres. This economy is principally because of the pre-bending of the planks over fire, which allows less wastage of timber than would otherwise be the case.²⁸

Like most other Madurese owners, Haji Amir buys his engines as second-hand truck or earth-moving machine engines from Singapore, through an agent in Surabaya. This is a much cheaper approach than buying a new marine engine such as a Yanmar or Kubota, and usually works out, after all the reconditioning and conversion has been done, at between half and one-third the cost of a factory-built marine engine. Maintenance is also much cheaper,

²⁷ Both the first and second sets of names used by Haji Amir stand outside the usual practice in Madura, with owners typically choosing flower names, Islamic names, or names suggesting handsome profits or good fortune.

²⁸ Pre-bending is probably also good for the longevity of the vessel, as the planks do not constantly strain at their fastenings. Some knowledgeable men are however of the opinion that the dynamic strength of the vessel is reduced by comparison with bending directly on to the hull.



Photo 37: A large *letelete*, possibly *Merpati*, under construction at Gayam, Sapudi, in 1983.



Photo 38: The same beach in 2003. The half-built hull, owned by Haji Ariyono, is based on the *pinis* form formerly used by the Bugis.

as spare parts for standard marine diesels are more expensive than parts for the converted truck engines. “I buy the engine without seeing it”, said Haji Amir. “After getting it checked over, I decide what needs to be done.” The engineering work is carried out in Surabaya. For his large vessels Haji Amir uses ten-cylinder Nissan diesels.

Despite the large capital outlay, there is no insurance on these vessels, although some consignment cargo may occasionally be insured by the consignor. Haji Amir did lose one vessel, which sank with its cargo in waters to the south of Pontianak in 1978. But he learned from that experience. Three times since then, vessels of his have been holed after striking rocks, but on each occasion the ship was saved by patching the hole with leather secured with nails, and using a compressor to operate a powerful mechanical pump. By comparison, most Madurese perahu do not carry any emergency kit apart from some shredded bamboo (*rekeh*) for caulking.

Apart from a dedicated emergency kit, proper maintenance is of course also important, and in this respect Haji Amir is again ahead of most other Madurese vessel owners. For most perahu, maintenance work is usually done on a beach, but the larger the vessel the less convenient this careening method is. Haji Amir’s vessels all go once a year into a dry dock, preferably in Banjarmasin, which is the cheapest place, but occasionally in Semarang. The cost of going into a dry dock was in 2003 around Rp 3 million, an amount which might appall many small perahu owners, but for such large vessels costing several hundred million rupiah, is cheap compared to the total capital outlay. The work can be carried out better than on a beach, and anti-fouling paint is used, unlike the usual coating of *kapur* (slaked lime mixed with vegetable oil). In 2003 Haji Amir’s oldest vessel was *Merpati*, still with all her original planking after twenty years, and probably good for a long time yet. *Merpati* is planked with teak, but the ulin-planked vessels should be more durable still, and good for around forty years barring accident.

Haji Amir is also ahead of most other Madurese vessel owners in the matter of navigation equipment, with all his vessels having satellite navigation devices, as well as the necessary charts.²⁹ Further, to minimize the possibility of engine failure, Haji Amir ensures that on each of his vessels there is a crew member competent in the maintenance of marine diesels, and capable, if necessary, of taking the engine apart at sea. And every one of his vessels carries at least one fire extinguisher.

When I spoke with Haji Amir in 2003 he was not sure whether or not he could afford to meet the cost of the engine for his new vessel. This was no serious obstacle to his venture, however, as he had plenty of business acquaintances in Jakarta, Semarang, and Kumai, who were all keen to invest with him if the opportunity arose. In a line of business where disaster

²⁹ His colleague from Gayam, Haji Ariyono also has satellite navigation on his vessels. A few of the larger vessels at Giligenting are also so equipped, but none in Sepulu and Sreseh.

can strike unexpectedly, and where numerous lesser players have withdrawn from the field in recent years, Haji Amir is a good man to have as a partner.

*Abdul Latif*³⁰

Abdul Latif is a perahu shipping agent based in the port of Juwana, Central Java. He is a rather small man of wiry build, with curly hair and a trim moustache, aged in his mid-thirties – which is relatively young for an established agent. Articulate and sociable, he mixes readily in the port with perahu crews and stevedores, and with his usual casual garb and unassuming manner there is nothing obvious to distinguish him from those seafarers and port workers.

He was born in 1967 in Telaga Biru, on the north coast of Madura. His father owned three *golekan* and was also a livestock trader, exporting cattle to Jambi in Sumatra. The family was moderately well off but not wealthy. As a lad, Abdul Latif had no expectations of following his father's vocation. He was bright and a high achiever at school, and aspired to become a government official. Unlike most of his peers he completed secondary school, but despite his intelligence and earnest approach, his hopes of getting work with the government were not fulfilled. For lack of any other employment, he turned to the standby work of Telaga Biru, crewing on a perahu. But unexpectedly, this experience of going to sea changed his outlook on life. He became aware, for the first time, of the business opportunities available in perahu shipping, and also of the shortcomings of his formal education. "When I was at school I just studied, without really thinking. My creativity was stifled", he said. "It was only then [after working at sea] that I realized how my education had done nothing to prepare me for a business career, which needs initiative, boldness, imagination..."

From the start he was fascinated by the challenge of pilotage and navigation, and took the trouble to obtain a chart of the Java Sea, from the Department of Marine Communications in Surabaya. None of his fellow crew members had such a chart, and by applying himself diligently in theory and practice he soon gained a reputation as an uncommonly capable navigator. With this technical prowess backed up by excellent communication skills, he so distinguished himself from his peers that in 1989, at only twenty-two years of age, he was appointed skipper of one of the largest vessels at Telaga Biru, carrying passengers to Pontianak and Tanujung Pinang in Riau, the gateway to Malaysia. Large numbers of people from northwest Madura were then travelling to Malaysia to work, in nearly all cases without a permit. They paid Rp 250,000 each, a fare which took them from Telaga Biru all the way to Kuala Lumpur. Abdul Latif himself arranged the necessary graft payments to police and immigration officials in Malaysia, while at the Telaga

³⁰ Interviewed 4/7/2003, 17/7/2003.

Biru and he would organize a 'dispensation' from the harbourmaster's office to carry twenty-five passengers on what was ostensibly a voyage to load timber. A dispensation for this number could stand scrutiny in the port records, but in fact his vessel carried 250 to 500 passengers on each outward voyage. On the return leg timber was carried from Pontianak.

One year later, in 1990, he accepted a position as skipper of a Madurese vessel carrying timber from Sampit to Juwana. In the course of his dealings with the port authorities in Juwana he so impressed the harbourmaster that the latter invited him to become a pilot for the port. Juwana does not receive large ships, with the only vessels calling there being local fishing craft and cargo perahu. In the past there had been no need for professional pilots as the vessels were usually small, but with the increasing size of vessels in the *Rakyat* fleet a need for pilot services had arisen.³¹

With this offer, Abdul Latif saw his career opportunities expanding. From 1992 until 1996 he worked as pilot in Juwana, and along the way he married a young local woman, a Javanese. But satisfied as he was working as a pilot, he was aware that his financial prospects would be even better as a shipping agent. To become a shipping agent in his own right required capital far beyond his resources, however.³² Therefore, in 1996 he approached the owner of a shipping agency in Gresik, a Javanese man, and made a proposal to him about opening a branch agency at Juwana. The shipping agent agreed to this idea, and in due course the branch agency was set up with Abdul Latif as manager.

The Juwana shipping agency is doing well, managing ten to fifteen port calls each month, and often organizing outward cargoes of rice or fertilizer to complement the inward timber freight; but as a side venture, and drawing on his experience as a port pilot, Abdul Latif was planning in 2003 to set up business in Juwana as a tug vessel operator. Although many of the vessels coming into the port are adequately powered, maneuvering in the narrow confines of the harbour is difficult, and the vessels are too large to manage with a long bamboo pole, the traditional method of propulsion in such confined places. For these reasons, tug services are now standard. To take advantage of this opportunity, Abdul Latif needed an appropriate vessel. Knowing what he wanted, he contracted a shipwright to build a vessel, twelve metres in length, to his own specifications. Unlike the usual 'tug' vessels in timber ports, which are rather rough utility craft suitable for assisting engineless vessels into

³¹ In 2003 the rule for the port was that vessels carrying more than 100 cubic metres of timber had to use a pilot. The charge for this service was Rp 2000 per cubic metre of cargo.

³² To open a shipping agency, four requirements must be fulfilled. First, an agency must have at least three vessels in its 'stable'. (They can be owned by anyone else, but for administrative purposes the agency is regarded as the 'owner'.) Second, a permit, called a SIUP (*Surat Izin Usaha Pelayaran*) must be obtained from the harbourmaster for the port concerned. Third, the agency has to join the port trucking organization (*Perusahaan Muatan Kapal Laut*, or PMKL), with at least one truck of its own. Fourth, and probably the most difficult requirement to meet, the agency must have Rp 250 million in its bank account, as working capital.

place but not much more, his vessel is a true tug, heavily constructed from ulin timber which he had imported from Kalimantan, and powered by a massive ten-cylinder engine, capable of pushing vessels displacing 500 tons and more. The total cost was expected to come to about Rp 200 million, a very large amount for a vessel of such modest dimensions; but it is built to last and should be a good investment.

Abdul Latif is thus well poised to take advantage of the changing circumstances affecting perahu shipping. He attributes his success to his education (notwithstanding his view that it had not prepared him for a business career), and his ability to relate to others and develop wide networks. These are, indeed, just the qualities and skills which are often lacking among Madurese people, and in this respect Abdul Latif is unsparing in his criticism of most Madurese maritime entrepreneurs, and especially those of his home area of northwest Madura: “Nearly all of them have no schooling beyond Year Three... [they are] ignorant, [they] trade speculatively, waste time and money on worthless pursuits, don’t plan ahead...”

Abdul Latif is similarly strongly critical of the lack of technical expertise on Madurese vessels. In most cases their sailing rigs are just token rigs to allow classification as KLM (*Kapal Layar Motor*, ‘Motor Sailing Ship’), which among other advantages means that they do not require a properly trained master or engineer.³³ But in practice most of them are entirely dependent on their engines, and given their size, they should really have trained engine staff. In the past, when Madurese vessels relied on sail alone – as recently as the mid-1990s for East Madura and Sreseh-Sampang – failure almost never occurred with the sailing rig because the making and repair of the rig was within the capability of the crews. Indeed, the sailors were extremely resourceful in this respect. But with the change to engine power, that expertise and resourcefulness has gone, with virtually no formally qualified marine engineers working on Madurese perahu. When I mentioned Haji Amir’s vessels, each of which is supposed to have at least one man knowledgeable about engines, Abdul Latif responded, “Even they have no proper training, they just have the guts to take a diesel engine apart and hope that they can put it back together again.” At the same time, he is also critical of the abandonment of the sailing rig for smaller vessels, and is enthusiastic about the economic advantages for engineless craft as a consequence of the steep rise in the cost of

³³ The master of a motor ship (KM, *Kapal Motor*) plying Indonesian waters only is required to hold the qualification MPT (*Mualim Pelayaran Terbatas*, ‘Restricted Shipping Master’), awarded upon successful completion of a three-month course at the Maritime Academy (*Sekolah Akademi Kemaritiman*) in Surabaya or Semarang; while the ‘engine room head’ is required to hold the certificate MD (*Mualim Diesel*). In contrast, for a Motor Sailing Ship (KLM), which comes under the *Pelayaran Rakyat* regulations, the master simply obtains an MPR (*Mualim Pelayaran Rakyat*) certificate from the local harbourmaster, for a fee (said to be Rp 500,000). Although no study is involved, this certificate is officially valid. There is no requirement for a trained diesel mechanic on a KLM.

fuel. Engineless craft have in general been marginalized in recent years because consignors prefer motor vessels, but Abdul Latif does not share this ‘modern-centric’ view, with some engineless vessels employed in his agency. He even opined that “The most useful thing about having an engine is that a vessel can disappear quickly” [regardless of wind direction or force] – in order to evade an *Airud* police operation.

He also disagrees with the general pessimism in Indonesia, including in port administration circles, concerning the future of the Kalimantan timber industry. “People say that it’s [nearly] finished, but they just follow what the NGO’s say, and never look for themselves,” he said. “And even if they do look, it’s just along the main road... I’ve traveled far into the interior, from Pontianak, from Sampit, from Kumai... driven a car for a whole day along back roads, without running out of forest all around. The timber isn’t finished, it’s just that so much goes to West Malaysia because the price there is higher than in Java. Even [oil palm and pulpwood tree] plantations can’t really threaten the forest, because they can’t make plantations on hilly country... I have looked seriously, I’m certain that timber for the domestic market will never run out... The export market is different, because only top quality wood goes for export. Top quality wood will eventually be in short supply, but for the construction industry we can use rougher wood, it doesn’t matter that it’s not perfect.”

Despite his success, Abdul Latif does not have an office of his own in the port area like some of the longer established agencies of Juwana. Instead, he uses the front part of his house, situated about a kilometre from the port, as his business premises. The house itself is basic, a far cry from the opulent ceramic-tiled residences of the new rich of the north coast of Madura. The interior walls of Abdul Latif’s house are instead of whitewashed plaster, marred by large cracks and scribbles of his two small children. The money spent on the tug vessel could buy a relatively grand house, but the business investment must come first, to provide for the future.

With their modest dwelling, he and his wife seem not much different from many other struggling young couples in Java. But as one of the few who have succeeded in bridging the gap between the traditional milieu of the villages of the north coast of Madura and the realities of the shipping business in modern Indonesia, Abdul Latif is an extraordinary individual.

Comment

From the biographical information presented in these six profiles, and building on material presented in earlier chapters, several salient observations can be made about Madurese seafaring and shipping entrepreneurship. First, to be competitive today vessels must be large, with even the smallest vessels operating in the timber trade fairly big by comparison with those of a few decades earlier. Even then, these small vessels (carrying around 100 cubic

metres of timber) need to be involved in trading to be viable, with earnings from freight alone at this size uneconomic unless engineless. Large vessels, such as those owned by Haji Amir and Haji Ariyono, are big enough to give good returns on freight, and they moreover earn on both outward and inward voyage legs – for example, Haji Amir’s vessels regularly carry cargoes of fertilizer from Gresik to Kumai, and Haji Ariyono’s carry the same commodity from Semarang to Kumai. In contrast, nearly all smaller vessels sail empty on the outward leg.

The second important observation is that it is today far more difficult than it was in the past to raise the capital necessary for a new vessel. Apart from the sheer increase in size, the cost of an engine – and especially since the fall in the value of the rupiah in 1998 – is a major burden which vessel owners never had to contend with in the days before engines became standard. As a rough rule of thumb, the cost of a new vessel in Madura, including an appropriately powerful engine, works out at between one and two million rupiah per cubic metre of cargo capacity. A 100 cubic metre capacity vessel, about the minimum feasible size nowadays, would – or should, if it is to be properly built and equipped – thus cost in excess of Rp 100 million, a very large sum. This is notwithstanding a general emphasis on economy, with engines almost always converted truck engines, and fuel tanks from recycled liquid chemical containers, made from plastic reinforced with an exterior steel cage – a practice which would never be tolerated by marine authorities in Europe or Australia.

This greatly increased capital requirement leads to the third observation drawing from the above profiles: the importance of having had a father who was successful as a maritime entrepreneur. In the cases of Haji Rofi’i, Haji Matsahri, and Haji Amir, the headstart derived from their fathers’ businesses is obvious, and many other examples could be given.³⁴ In earlier times, success was much less dependent on such an advantage, because there was then more scope for smaller, cheaper vessels. (Similarly, one could set up then as a timber trader with relatively little capital.) However, as important as this point about family success and networks is, there are many cases in which success in the past has not been carried through until the present. One of the most striking examples in this respect is that of one Pak Timunah, of Telaga Biru. In the heyday of the *golekan*, up until the late 1970s, Pak Timunah owned eleven vessels, and was probably the most successful vessel owner of the entire northwest coast; but today nothing remains in his family of that legacy.³⁵ This is a

³⁴ Although there is no need for further examples on this point, one further case, that of Haji Rufieh of Labuan, Sreseh, warrants mention. With six vessels in 2002, Haji Rufieh has been the most significant vessel owner in Sreseh over the past decade or more. He was not included in the above profiles because his vessels have been engaged almost entirely in the pole timber trade, and not sawn timber. The important point in the present context is that Haji Rufieh inherited a large fleet from his father, the late Haji Sidik (see pages 144-145).

³⁵ Information from Pak Yakob, interview 11/10/2002.

particularly revealing case, as it suggests a poor capability to capitalize on earlier successes and to adapt to changing conditions.

A fourth observation from the profiles is that vessel loss is by no means a rare event – although from a humanitarian perspective, we can also note, in passing, that loss of life among crews is rare. This uncertainty, the ever-present possibility of loss of both vessel and cargo, makes the large investments involved unusually vulnerable by most modern business standards. Most importantly, in this respect, there is no insurance. Occasionally outward cargo from Java may be insured,³⁶ but never timber, and never the vessel. Insurance is in general much less common in Indonesia than in more affluent and developed countries, and in the case of the perahu economy it hardly exists at all. This reflects the semi-traditional nature of this transport sub-sector, and the social world of the actors within it. Insurance is a facility which they either do not know how to access, or is simply too expensive for them. Moreover, most perahu, and certainly most Madurese ones, would not come close to meeting the conditions which a reputable marine insurance company would require before issuing a policy. Given this lack of insurance for perahu shipping, it is therefore appropriate to consider the economy of shipping as it concerns the primary capital investment, the vessel itself.

The earnings from a vessel working in the timber trade have generally been good, especially with a trading interest in the timber carried. Up until around 1997, it was widely held to be possible to recover the outlay for a vessel in just one year. Since then, with the rising costs of construction timber and engines and parts, the capital outlay required for a given size of vessel has risen considerably; and this has been coupled with greater bureaucratic vigilance and slower turnarounds in timber ports in Kalimantan. Nevertheless, the generally held view among vessel owners is that the outlay for a new vessel of economic size – 200 cubic metres or more – can be recovered within a period of two to four years.³⁷

Assuming an adequate demand for such maritime transport services, the ultimate profitability of a vessel will depend on the length of its working life. Until relatively recently

³⁶ For example, the government agency Bulog, responsible for the distribution of rice and other essentials, sometimes uses *Rakyat* vessels, with insurance for the goods carried. In 1997 a large vessel owned by Haji Ariyono of Sapudi, contracted by Bulog to carry 500 tons of rice from Gresik to Sulawesi, sank just after leaving Gresik. Because the cargo was under consignment from Bulog, it was insured, but there was no insurance on the vessel. The cause of this sinking was remarkable, and in itself a comment on the uncertainties of *Rakyat* shipping. Coming out of the port, Haji Ariyono's vessel had to take evasive action to avoid a ship which was manoeuvring, and in the process struck squarely against the end of a submerged mast of a Butonese perahu which had sunk at that spot. With the great momentum of the heavily laden vessel, the mast was driven, like a lance, straight through the planking. Haji Ariyono subsequently complained to the Gresik harbourmaster, with the result that the hazard was removed; but he received no compensation for the loss of his vessel. (Interview, Haji Ariyono, 24/1/2003.)

³⁷ For example, Haji Rofi'i stated that he expected to recoup the outlay of his ill-fated *Gunung Mas* within a period of two to three years. (Interview, 10/10/2002.)

most Madurese vessels were built from teak, with a working life potential of thirty years or more. By comparison, a vessel built of the cheapest timber, meranti, will last for perhaps only seven years in the tropical climate, long enough to recover the capital but generally considered a poor investment. Within the past decade or so the most common timbers for planking of cargo vessels in Madura have however been bungur and ulin, imported from Kalimantan. Assuming sound construction and good maintenance, a bungur-planked vessel can last for around twenty-five years, while vessels planked from ulin can last for up to twice that long.³⁸ Given this durability of materials, a new vessel which can recuperate its cost in just four years should be, in principle, an excellent investment. But as it happens, a great many vessels do not reach their 'natural' life expectancy.

There are four main reasons for this, leaving aside general neglect. The first reason is damage sustained in port. Perahu harbours are no place for fine, lightly constructed vessels. The worst place of all was Kali Baru harbour, which used to be jammed almost solid with Madurese vessels. Other ports are better, but not much, with vessels often stacked four deep against the quay. The fully laden vessels are very heavy, and knocks can be punishing on the hulls.³⁹

A second reason is shipwreck – striking rocks or running aground. Prior to motorization of the *Rakyat* fleet many a perahu was lost in this manner, but fortunately such accidents are now much less common. Vessels under engine power are more likely to keep a straight and reasonably predictable course, and their skippers more likely to know the vessel's position and less likely to take dangerous risks. Nevertheless, shipwrecks still occur.⁴⁰

A third reason is sinking as a result of excessive leaking, or outright hull failure, such as a plank opening up, at sea. Such accidents are almost always associated with overloading. A vessel which may have dry bilges when empty in port may leak a lot when heavily laden, especially in a rough seaway. The switch to engine power has exacerbated this

³⁸ Ulin only became widely used for perahu construction from about 1970, with the standard timbers until then teak, for Java and Madura, and laban for eastern Indonesia. I have however seen vessels built from ulin that are over thirty years old, and still apparently in sound condition. Laban is widely regarded in Madura as being as good a marine timber as ulin, but is less often used because it is less common than ulin (in Kalimantan), and not usually available in long lengths.

³⁹ In particular, unloading squared logs by a derrick rigged to the mast – a Madurese specialty – can be risky. As the cargo is gradually discharged the vessel becomes lighter, and heels over increasingly further toward the quay as each heavy load is swung well outboard. In the final stages of unloading the heeling can reach thirty degrees or more. There is no danger of capsize or flooding; but when the weight of the load is released, the beamy shallow-bodied vessel rolls back with a violence that could easily result in serious damage if it were to make contact with another vessel. Many a small perahu has had its working life drastically shortened in accidents of this nature.

⁴⁰ For example, in May 2002, a large vessel owned by Haji Taufik of Labuhan, Sreseh (a son-in-law of the late Haji Sidik, mentioned on pages 144-145; and see also page 185) sank after hitting a reef, under engine power, en route from Beliton to Java. The cargo was lost as well as the vessel, but the crew were saved. Good navigation equipment and skills could probably have prevented this incident.

problem, as under engine power vessels frequently make passages, fully laden, directly against a heavy head sea kicked up by the southeast monsoon during July and August. The resultant pounding has been known to cause planks to open. Under sail vessels could not of course point very high, going more or less obliquely to the waves. Furthermore, many vessels which have sunk due to excessive leaks were already well past their prime, and should never have put to sea in that condition. Lives have often been put at risk, to benefit the vessel owner. One alarming case of which I know personally involved a young man, Rohim, from Sreseh. Originally from Pasuruan, Rohim moved to Sreseh in 2001 after marrying a local woman. In September 2002 he obtained a crewing position on an old vessel with a small engine. The vessel loaded timber from Marabahan, on the Barito river in South Kalimantan. Although the sea conditions on the return passage were mild, the vessel was very slow, and it was also leaking badly, with a portable engine-powered bilge pump running constantly to keep the water level down inside the hull. Two days out to sea, the pump broke down. The ingress of water was unstoppable; bailing or pumping by hand was out of the question. They continued motoring, slowly, praying that they would reach land before the vessel went down. Naturally there was no radio, nor even a small canoe for that matter. Rohim, on his first voyage, could not swim. Another day later the engine, now under water, stopped. Desperate, they jettisoned as much timber as they were able to, about 30 cubic metres (out of a total of 80), but it made no difference. Helplessly, they waited two more days as the doomed vessel sank lower and lower in the water, until finally it was completely awash, with the three crew, covered in diesel fuel, perched on top of the deckhouse. On the third day, as the end seemed near, they were rescued by a small fishing craft from Sepulu. They were taken to Sepulu, where Haji Rofi'i gave them Rp 25,000 for transport and other expenses back to Sreseh.⁴¹

In addition to sinking due to the unseaworthy state of the vessel, as in the above case, from time to time vessels are lost due to stress of weather during the early part of the northwest monsoon. Again, however, such incidents are usually associated with overloading. One of Haji Rofi'i's vessels, an old one, sank like this in February 2002; and one week later another Sepulu vessel, owned by Haji Farouk (who had bought Haji Matsahri's *Dana*) also sank.⁴² A worse case occurred in 1999-2000, when according to the head of the *desa* of Gayam, ten Sapudi vessels were lost because of unexpected heavy seas.⁴³

⁴¹ Pers. comm., Rohim, 17/9/2002. The owner of this vessel, Haji Endin, was the former skipper of Haji Matsahri's *Sumber Makmur*, who had at that time just been released after three months in prison (the case referred to on page 185).

⁴² Pers. comm., Haji Rofi'i.

⁴³ Interview, Imran Rasyidik (*desa* head for Gayam), also Haji Muhammad Rasyid (father in law of Imran, and brother of Haji Amir Hosein), 23/1/2003. The northwest monsoon in general blows with less force and steadiness than the southeast monsoon, and in its early stage is characterized by fickle winds punctuated by periods of squally weather which are difficult to predict.

The final major reason for the premature end of a vessel is fire. Three cases of vessel loss due to fire have been mentioned in the above profiles, and further investigation would undoubtedly reveal more.⁴⁴ Notwithstanding that diesel engines present a very low fire risk, it is probable that losses due to fire are more common than in engineless days. Petrol-powered generators are a danger in this respect, especially coupled with the high consumption of cigarettes on board. It is remarkable, and significant, given the large amounts of capital outlay, that fire extinguishers are a rarity on all except the largest and most well-found Madurese vessels. Fire extinguishers can however be difficult items to buy in East Java, and there is no enforcement of the safety regulations.

In considering the matter of premature demise of vessels, it is stressed that the incidents mentioned above are the exception, and that many vessels do last twenty years and more. The point is that this is a field of business fraught with risk, and the relatively high profit margins which have generally been obtained must be measured against the ever-present possibility of vessel loss and financial disaster, with not even bankruptcy available as an avenue out of such a predicament.

The Madurese and the Bugis

It is appropriate to finish this chapter with some observations about the Madurese as seafarers and traders by comparison with the Bugis. As mentioned earlier, the value of this comparative treatment is the perspective it provides of the Madurese as seafarers and maritime entrepreneurs.

The Bugis (Bugis-Makassar) are more important economically than the Madurese, with more vessels and especially greater tonnage. In general the two groups mix little, but there is no real rivalry or bad feeling between them. Although the Madurese have little to do with the Bugis directly, they do however respect them for their vessels and their maritime capability. Not only do the Bugis have more large vessels, they also routinely sail throughout the year, unlike most Madurese craft which lie over for the northwest monsoon. Nor is such year-round sailing among the Bugis confined to their large vessels: in October 2002 there was a small Bugis perahu in Pasuruan carrying only 50 cubic metres of timber and very heavily laden at that, which had at the time been working more or less continuously for two years, sailing straight through the northwest monsoon.⁴⁵ By comparison, among Madurese

⁴⁴ In another case of which I know, a vessel belonging to one of the leading maritime entrepreneurs of Giligenting, Haji Abdul Azis, burnt out in Surabaya in 1999 (interview, Haji Abdul Azis, 11/7/2003). The remains of burnt vessels can be seen in many perahu harbours.

⁴⁵ That does not mean that this vessel (and most other *Rakyat* vessels working through the northwest monsoon) was putting to sea regardless of the conditions. The dangerously bad weather during the northwest monsoon is usually of short duration, often two or three weeks. The usual strategy is to wait in port until conditions moderate. It should be borne in mind that passages across the Java Sea usually take no more than three days.

vessels it is only large craft, carrying 200 cubic metres or more, which work all year round; and significantly, none of these are from either Sreseh or Sepulu.

The small Bugis vessel referred to above, *Sinar Sejati*,⁴⁶ also serves in other ways as a basis for comparison with the Madurese as maritime entrepreneurs. For example, despite her small size, her owner had no trading interest, with earnings from freight only. Both capital outlay and operating costs were kept low by fitting only a small diesel engine, and at the same time retaining – and using – the original sailing rig, with no diminution of sail area. The vessel in fact works as a full-time ‘motor-sailer’, and according to the crew had taken only two days and two nights from Sungai Danau in South Kalimantan, to Pasuruan, against a stiff southeasterly – fast going, with such a heavy load. By comparison, once an engine is fitted in a Madurese vessel, sails are usually relegated to serving as a steadying rig only, to prevent excessive rolling under engine power in a seaway.

Leaving aside *Sinar Sejati* and her stoically cheerful crew, there are broader points of comparison between the Madurese and the Bugis. The Bugis have in general been more outward-looking, and more inclined to borrow ideas from others. As evidence for this assertion, we need look no further than the development of the Bugis perahu. Centuries ago the seafarers of southern Sulawesi were already incorporating features which they had seen on Portuguese ships, and in the late nineteenth century the *pinis* rig was borrowed from Malay vessels which they encountered in Singapore and the Straits (see Gibson-Hill, 1950: 118, and 1952: 100-106; also Horridge, 1979b: 24-31). In marked contrast, the Madurese, despite a continuing evolution of their own vessels during this time, borrowed from no one – except, in a very limited sense, from the Javanese, and then only in East Madura. In West Madura the vessels remained completely autochthonous until the early 1980s.

Taking this theme more generally, there has long existed a receptiveness toward foreign ideas in Makassar, as evidenced by the seventeenth century chancellor of Makassar who embraced advanced European concepts and learning (Reid, 1983: 445). The contrast between this enlightened Makassarrese leader and the old ruling class of Madura, who in the late nineteenth century showed little serious interest in European education (Kuntowijoyo, 1980: 196-7), is profound. To culturally extrapolate from these historical examples to mariners of these two peoples at the present time may seem somewhat speculative, but for anyone who has had much involvement with the Madurese and the Bugis, such a connection is not implausible. Madura’s high illiteracy levels are a matter of record (Kuntowijoyo, 1980: 493; Sudagung, 2001: 73); and many Madurese perahu sailors today, especially from West

⁴⁶ This vessel was then twenty years old, but still in sound condition, being built entirely from ulin. The owner also worked as the skipper until 2001, when he commissioned the building of a much larger vessel. Although from Makassar, he was renting a house in Pasuruan, with his wife staying there. Conditions for the six crewmen were harder: none of them had returned to their home bases in the previous two years.

Madura, have only a basic knowledge of Indonesian, and are really comfortable only in their native language. Some skippers from both Sepulu and Sreseh fall into this category, and are consequently disadvantaged in their dealings with officials. In contrast, Bugis crewmembers are generally fully proficient in Indonesian, presenting as native speakers, and they are also more confident than the Madurese in their dealings with outsiders, including officials. The case of the forward-thinking Bugis timber merchant Haji Aliansyah, and the contrast between his style and that of some of his Madurese rivals,⁴⁷ is in this respect telling.

If Madura has in modern times stood out for the generally low standards of formal education, going further back it was apparently the capital for organized banditry (Nagtegaal, 1996: 182-3). In modern times banditry has not been a conspicuous issue in Madura,⁴⁸ but the Madurese in general are often associated with dubious business practices and cheating. Much of this is of course just prejudice on the part of non-Madurese, but in the context of the Kalimantan-Java timber trade, there have apparently been more than a few cases of Madurese buyers who have cheated their suppliers. One Banjarese timber merchant at Pasuruan, a man on friendly terms with some Madurese timber dealers in the port, stated:

My dealings with Madurese people have always been good. But prior to the conflict in Sampit I heard many stories from Central Kalimantan about sawmillers being cheated by Madurese. A [Madurese] vessel would come to buy timber, but with only enough money for 50 percent [of the total loaded]. They would promise to pay the remainder next time around, but on the following voyage they would buy their timber from a different sawmill, not settling their debt... There were many cases like that.⁴⁹

Allowing that such cases of deception were the exception rather than the rule, it nevertheless seems reasonable to assume that the Madurese are, or at least were until recently, more likely than entrepreneurs from other ethnic groups to act like this. If so, why? By way of partial explanation, the following observations are offered. First, many Madurese tend to 'look for a short cut' to success. Indeed, this is a point which was impressed upon me by some Madurese informants as a singular feature of their own culture. Second, coupled with this readiness to dispense with the usual rules or procedures for business has been a lack of deference to authority generally, unless that authority is backed by force.

It is here appropriate to include two opinions concerning the Madurese. The first comes from the harbourmaster for Pasuruan, a person clearly well informed on nautical matters generally, and with many years of experience with both the Bugis and the Madurese.

⁴⁷ See pages 216-217.

⁴⁸ It nevertheless persists, and in my time in West Madura I have heard of serious cases of people being robbed on the roads at night. I myself was once robbed after making the mistake of getting into a vehicle which purported to be a small public transport vehicle, but which was operated by a gang of six bandits. My bag was slashed open and money taken, and I was ordered out on an isolated stretch of road.

⁴⁹ Interview, Haji Asrani, 5/10/2002.

In an interview, he made it clear that in all respects he preferred to deal with the Bugis, who were generally well organized and whom he respected as mariners. In contrast, he was strongly critical of Madurese vessel operators, many of whom were in his view short-term profiteers who routinely flouted the relevant shipping regulations and who used vessels that were in many cases roughly built and poorly equipped, and even dangerous to go to sea in.⁵⁰

The second opinion comes from Professor Parsudi Suparlan, an anthropologist from the University of Indonesia and a specialist on inter-ethnic problems. Speaking in the context of the ethnic conflict in West Kalimantan, Professor Suparlan expressed the view that the Madurese in the conflict areas were often aggressive in their business dealings, with some among them showing scant regard for the law. There was little respect among them for established formal authority, and their primary loyalty and deference was rather to their individual religious leaders. Indeed, Professor Suparlan added that he regarded this as the most outstanding characteristic of the Madurese by comparison with other ethnic groups. However, he stressed that his comments applied to the Madurese of West Madura, rather than of East Madura, and especially Sumenep, where social behaviour has been strongly influenced by Javanese culture.⁵¹

Professor Suparlan's point of a cultural dichotomy between West and East Madura is of course intended generally, rather than in the context of seafaring and maritime business. Nevertheless, within the maritime sphere a distinction can be drawn between the cultures of East and West Madura. For example, when I asked vessel operators from Sreseh why they did not operate through the northwest monsoon, as did some small Bugis craft, the typical response was that they lacked the experience to do this. Significantly, one owner, a man with years of sailing behind him, commented that 'his people' ("*bangsa saya*") lacked the maritime skills and capability of the Bugis.⁵² In contrast, when I asked the very successful vessel operator Haji Ariyono of Sapudi if the maritime culture of his island, situated as it is well offshore from the main island of Madura, might include a significant Bugis element, he replied that that was not the case; the people of Sapudi were pure Madurese, "but in our maritime orientation we are the same as the Bugis."⁵³

This difference in outlook between the maritime operators of East and West Madura is reflected in their respective fleets. In 2002-3 there were approximately fifty vessels working from Sepulu, and a similar number in Sreseh, but with only about thirty-five working in the sawn timber trade and the others in the pole trade. Sapudi's fleet has shrunk

⁵⁰ Interview, Sukartono (harbourmaster for the port of Pasuruan), 25/11/02. In fairness, it must be noted that the best Madurese vessels do not usually call at Pasuruan.

⁵¹ Cited in Petebang and Sutrisno (2000: 141-142). Professor Suparlan chaired a panel of inquiry into the West Kalimantan conflict, and visited the areas concerned.

⁵² Interview, Haji Abdulbariq, 21/12/2002.

⁵³ Interview, 24/1/2003.

greatly, with probably about forty vessels left in commission there, while Giligenting has at least one hundred. These bare figures need qualification, however. First, the vessels from Sreseh and Sepulu are in general less well-built than those of Giligenting and Sapudi, and the largest and best equipped vessels are all from the two latter places. Second, all the Madurese vessels which continue to work through the northwest monsoon come from Giligenting and Sapudi. Third, there are differences not only in size but also vessel design, with the new generation vessels of Sapudi tending toward the Bugis vessels in design, while the newer vessels of Giligenting are of modern small motor-ship styling with flush decks and high bulwarks.

Such is the state of Madurese shipping at the present time, with some entrepreneurs, mainly from East Madura, poised to meet the challenges of the twenty-first century, and some others, especially from West Madura, much less well prepared.

CHAPTER X

Conclusion

Although Madura is essentially part of Java, the Madurese people have long been regarded as ‘different’ and standing apart from the mainstream of Javanese culture. That difference is almost certainly of ancient origin, with the closeness between the Madurese and Malay languages suggesting that the Madurese migrated to their island homeland not from the nearby mainland of Java, but from further afield, possibly Sumatra. Their indigenous watercraft, completely different in both form and construction from the Javanese type as exemplified by the *mayang*, also suggest an origin beyond Java.

One of the many distinctive characteristics of the Madurese is their strong maritime orientation. The notion of the Madurese as a maritime people, in contrast to the agricultural orientation of the Javanese, has been widely perceived, both by the two peoples themselves and also by colonial Dutch observers. Yet this ascription has clearly been overdone, for up until the late sixteenth century maritime trade it was the Javanese who dominated maritime trade within the archipelago. Even two centuries later, the Javanese were still the most important ethnic group in indigenous shipping along the north coast of Java. But since the Javanese withdrew from indigenous shipping during the second half of the nineteenth century, the popular perception of the ‘natural’ seafarers of the region has been limited to the Bugis and the Madurese. Indeed, the position of the Madurese as the only modern maritime ethnic group of Central Indonesia, in counterpoint to the dominance of groups originating from South Sulawesi, increases the sense of difference with which the Javanese regard the Madurese.

Notwithstanding this blinkered view of Javanese maritime history, dependence on the sea and watercraft has probably always been greater around Madura than along the north coast of Java, although this was not necessarily reflected in Madurese involvement in shipping and archipelago-wide trade. The fundamental reason for this maritime orientation was that Madura was a much smaller island than Java, with a long coastline relative to the land area, and virtually all of that coastline gently shelving and suitable for the working of small vessels. But in addition, the poor soil and especially the lack of water for irrigation severely constrained the yields available from agriculture. People inevitably gravitated toward the coast, where the standard of living during the second half of the nineteenth century was significantly better than that experienced inland. Fishing was the standby for most coastal people, but many vessels, including large outrigger craft, were also involved in small-scale shipping and trade, carrying small traders and their wares to market centres on

the other side of the Madura Strait. These short-haul trading vessels were boats rather than ships; but collectively they played a vital economic role, for with the chronic food crop deficit on Madura the common people depended on commodity exchange for their survival. There were also larger craft from Madura involved in long distance trade, sailing as far as Malacca before VOC restrictions limited their range. These larger vessels were probably owned mainly by aristocratic elites, but during the second half of the nineteenth century a few commoner Madurese, as well as Arab and Chinese entrepreneurs, also owned substantial vessels of European or European-inspired design. Yet it was not at the level of these leading shipping entrepreneurs of the day that the Madurese were able to establish their supremacy over the Javanese in indigenous shipping, but rather at the level of the strand villages, where the people had no choice but to look to the sea for their livelihood.

The rise of the Madurese as a major force in indigenous shipping roughly coincided with the development of modern transport infrastructure in the Netherlands Indies. Javanese shipping entrepreneurs were rapidly marginalized as railways and steam shipping drastically reduced their opportunities for profit, at the same time as the cost of teak for shipbuilding rose sharply. Madurese vessel operators were similarly affected by these developments. The MSM's railway and ferry service severely impacted upon Madurese perahu operators, while the government-backed KPM shipping line aggressively targeted Madurese perahu shipping, even setting up a service from Sumenep to Banjarmasin in an attempt to oust perahu from this major long distance route. But whereas along the north coast of Java perahu shipping succumbed completely, in Madura it survived, albeit with considerable attrition, especially along the south coast.

There were three general factors contributing to the survival of Madurese perahu shipping in the face of these adverse economic conditions under Dutch rule. The first of these factors was the separation from the mainland of Java, which allowed a wider range of opportunity for transport perahu operators in Madura than existed anywhere along the north coast of Java itself. In particular, to travel from Sumenep and Pamekasan to the East Hook of Java was a very long journey by land, whereas the sea passage could be achieved in a single day. Even from Sampang to Pasuruan, perahu shipping was able to compete successfully against mechanized land transport systems because of the distance around by land, coupled with the complication of crossing the narrows by ferry. The north coast villages were more isolated than almost anywhere along the north coast of Java, and were more like island communities in their dependence on the sea for transport. There were also long-established communities living on the islands to the east of Sumenep, for whom perahu transport remained essential.

The second major factor contributing to the success of the Madurese as maritime entrepreneurs was cultural. Their tradition of frugality and self-reliance, forged in the tough

economic milieu of the rural hamlets, gave the mariners of Madura a resoluteness and determination which enabled them to expand their operations while the coastal Javanese withdrew to fishing – just as the Madurese who migrated to the tobacco and coffee plantation areas of East Java were able to take control of those industries, and those who migrated to West and Central Kalimantan were able to claw their way to prosperity at the expense of other ethnic groups. The economic adversity which had so profoundly influenced the course of social history in Madura was thus for the seafaring Madurese an advantage during the latter part of the nineteenth century as they captured most of the Javanese share of the indigenous shipping economy, and became increasingly regarded by Dutch colonial observers as “a separate type of islander by comparison with the Javanese”, with a natural affinity for seafaring and risk-taking. This risk-taking was more than just physical, for the Madurese also stood out in their propensity for business and trade, no matter on how small a scale. This entrepreneurial aspect of Madurese culture was another legacy of the harshness of economic existence on Madura, and was reflected in the very large number of trading perahu operators in Madura in the early twentieth century. These strand communities were hardly wealthy, but there was great depth of involvement in shipping, while the capital requirements for such involvement were clearly not nearly as difficult a barrier to overcome as would be the case a century later.

These two factors, the environmental and the cultural, were already enough to enable the Madurese transport perahu operators to distance themselves from their Javanese rivals. But the Madurese had a further advantage in the form of key commodities. Perahu could carry almost any sort of cargo, but three commodities had been especially important historically: rice, salt, and timber. The transport of timber from the Rembang coast to Jakarta dwindled during the nineteenth century as good stands of trees became increasingly scarce in the coastal districts, with railways eventually taking over the transport role; while the transport of rice was similarly lost to railways and steam shipping, although rice persisted for much longer as a perahu cargo to Madura. The other major cargo item, salt, was however better suited to transport by perahu as salt could only be produced in coastal areas. As with timber, the Rembang-Lasem fleet was well-placed for this work, with major salt production centres located nearby. But this standby for the Rembang-Lasem fleet disappeared following the concentration of the salt industry in Madura after the 1870s and the confirmation of the salt monopoly. On the other hand, this decision by the government to make Madura the ‘island of salt’ for the entire Netherlands Indies led to increased economic opportunity for perahu operators in those parts of Madura which were close to the salt production centres. Especially in the Sampang-Blega estuary area and Sumenep, there were substantial fleets of perahu working for the Chinese who monopolized the salt transport contracts. These perahu were engaged in both lightering duties, carrying the salt from the production centres to ships

waiting offshore, and the transport of salt from Madura to places along the north coast of Java. This salt carrying work proved to be a valuable standby during a period when opportunities for indigenous shipping were declining in general due to competition from modern transport systems, and it continued to be important after Independence, when the shortage of modern shipping services and the de-regulation of the salt industry provided further opportunities for both *letelete* and *janggolan*.

Another commodity which was especially significant for Madurese transport perahu operators was livestock, especially cattle; and again, they were in this respect advantaged over their Javanese rivals. There was a significant cattle trade in Java, but the market was based inland. But on Madura, where the cattle industry was possibly the most important sector of the indigenous economy, the transport of cattle to the nearby markets of East Java was a major line of work for local vessel operators. They faced stiff competition from the MSM, but managed to retain control of this trade until the end of the Dutch rule by undercutting the MSM's rates. Cattle were also transported to the far shores of the Java Sea. Perahu from Sumenep, including Sapudi, carried cattle to Banjarmasin as well as to East Java, while on the northwest coast cattle became the major cargo item for vessels from Telaga Biru, sailing to West Kalimantan. Whereas on the south coast of Madura the movement of cattle was eventually lost to land transport and modern shipping services, on the northwest coast the export of cattle has continued to be dominated by *Rakyat* vessels until the present, albeit with much less widespread involvement than in earlier times.

Finally, concerning factors which have contributed to the success of the maritime entrepreneurs of Madura, it is appropriate to consider the influence of Islam. As Islam has been widely associated in Southeast Asia with an ethic of work and business, it seems reasonable to infer that the centrality of Islam in Madurese culture must have been beneficial to the maritime Madurese. However, the former capital of indigenous shipping, Rembang-Lasem, is also strongly Islamic. Indeed, all the major maritime ethnic groups of modern Indonesia are Islamic. Belonging to the wider Islamic community may thus have been advantageous for establishing networks; but given the clear ethnic divisions which have characterized modern perahu shipping, it is evident that ethnicity has been at least as important for success in this field as simply being Muslim.

The remarkable feature about Islam in Madura is the extraordinary social status accorded the *kiai*, but modern *kiai* are little involved in ordinary commercial dealings, and actually distance themselves from such activities. Indeed, according to Touwen-Bouwsma the influence of the *kiai* as a group has been the major obstacle to political and economic integration with the Indonesian state. But while this isolationism has undoubtedly hindered general economic development in Madura, at an individual level it has been conducive to success in certain fields of enterprise, including maritime transport and trade.

This paradox is connected with the Madurese view of themselves. For despite the history of poverty and struggle in Madura and the continuing economic backwardness by comparison with Java and Bali, the Madurese have a strongly positive view of their own society – a view anchored in the integral place of Islam in their culture. They may lack worldliness, speaking generally, but they do not lack ethnic self-esteem.

This sense of ethnic worth has sustained the seafarers and maritime entrepreneurs of Madura throughout the twentieth century and provided them with a self-assuredness in their approach to business, so that they never doubted their own capability or the appropriateness of their traditional maritime technology in the modern world. Even though their stronghold in Java, Kali Baru, was immediately adjacent to the Tanjung Priok container terminal, the incongruity of their continuing reliance on small engineless vessels of indigenous design in no way fazed them. Indeed, their seemingly archaic vessels were in themselves a product of that ethnic self-assurance, with no need felt to emulate the more modern perahu types. To put this matter into perspective, even in the mid-nineteenth century most of the leading perahu types showed significant European influence in their hulls or sailing rigs. Of course, this technological isolation on the part of the Madurese could not be maintained indefinitely, especially with the increasing need for engines in order to be able to make way upstream, against the current, in the rivers of Kalimantan. But modernization in vessel design did not take place on the south coast of Madura and in the eastern islands until the 1990s; and even then it was not the result of an incremental process which had been under way for decades, but rather a rapid and almost total change, as if a collective decision had been made.

This sense of assurance in themselves as Madurese, with minimal concern for either the Indonesian state or other cultures with which they came into contact, is also reflected in the pattern of Madurese migration to West and Central Kalimantan. This large-scale outward movement was from the outset spontaneous, and continued to be mainly so even during the era of the New Order state's transmigration scheme. Even the transportation process, by perahu, was in violation of the shipping regulations. On arrival in the new land these migrant Madurese, mostly poorly educated young people from the north coast and hinterland villages of West Madura, became keenly aware of their own ethnicity, regarding the native Dayak majority as a pre-Islamic Other while regarding themselves as the natural group to succeed economically. But while many of these migrants did prosper to a degree far beyond what they could have managed in Madura, as a group they failed to realize that their aggressive pursuit of material success would eventually seriously disadvantage them as they became increasingly resented by the indigenous peoples of West and Central Kalimantan.

The Madurese maritime entrepreneurs who became involved in the Java Sea timber trade from the late 1960s onward similarly did so on their own terms, with their own distinctive approach to business. From the outset perahu took a commanding role in the

timber trade, confounding the view of the New Order state's planners that the movement of the vast quantities of timber needed for development in Java should be carried out primarily by modern purpose-built ships. This was a Eurocentric view which failed to take into account both the specific problems associated with the transport of timber, and the capability of the indigenous shipping sub-sector. There were however significant differences in the nature of involvement in the timber trade of the two major maritime groups concerned, the Bugis and the Madurese. The Bugis, who had established themselves as the pre-eminent indigenous shipping group, were by this time functioning in much the same way as European tramp shipping had done in the archipelago during the nineteenth century, prior to the ascendancy of steam. They sailed all year round, their cargoes were arranged in advance by agents, and they usually carried cargo on the outward passage from Java as well as inward. They thus fitted perfectly with Dick's concept of *perahu* and modern shipping being on a continuum, and they responded to the stimulus of the demand for timber in Java by building increasingly large vessels in order to increase the profits from freight. In the late 1940s there appears to have been little difference in capacity between the Bugis *pinis* and the Madurese *letelete*, but by the early 1970s the Bugis vessels were on average much larger than Madurese craft.

The Madurese had also long been involved in freight work, but as they lacked the efficient business organization of the Bugis agents they usually sailed empty on the outward passage from Java. But they were able to compensate for this, for in contrast to the other goods that Madurese vessels usually carried, such as salt, onions, sand, and cement, the unique commodity characteristics of timber, at that time and in that geographic setting, allowed ample opportunity for many Madurese vessel operators to become involved in timber trading. As with the ubiquitous Madurese pavement traders, low capital restricted scope of business but not entry into it, and many entrepreneurs set up with only a few cubic metres of timber at their disposal. Unable to use the main Jakarta *perahu* harbour of Sunda Kelapa, they turned to the inlet of Kali Baru, just to the east of Tanjung Priok, and made it their own place.

This difference in approach between the Bugis and the Madurese was not absolute: some Bugis vessel operators did have trading interests in timber, while some Madurese vessels did carrying work only. But the difference was nevertheless significant, as is evident from the Madurese specialization in squared logs. As well as in Kali Baru, Madurese entrepreneurs set up as timber traders in other ports along the north coast of Java, especially Pasuruan. But it was in Madura itself that their own entrepreneurial style really came to the fore.

It was not by chance that the Madura-based timber trade started in Telaga Biru. Of the different maritime groups around Madura, the Telaga Biru vessel operators had retained

the strongest personal interest in trade, and their vessels were the least involved in bulk freight work. They were thus the furthest out on Dick's concept of a continuum of shipping in Indonesia, in so far as they fitted with that notion at all, and their proximity to the major city of Surabaya belied the limited extent of their socialization into the modern Indonesian state. With teak becoming increasingly expensive, the Telaga Biru skippers started carrying small quantities of high quality timber to sell in Madura on their return from West Kalimantan. This trade gathered pace during the 1980s, with buyers coming to Telaga Biru from Java and even Bali; and in the 1990s it boomed, with other localities, notably Sepulu, and Pagar Batu in Sumenep, also emerging as significant conduits for timber bound for Java.

Although this trade was at first quite illegal, to label these maritime entrepreneurs in Madura as 'timber smugglers' would be a rather narrow and unfair assessment. Indeed, for many of those involved there was only a vague understanding, at best, of the timber transport regulations. Such laws, whatever their details might be, might be applicable in Jakarta, but not on Madura. Of course, local officials were aware that the state was being deprived of revenue, but they were also aware of how little their communities had received from the showcase economic development which had taken place in Indonesia generally. In condoning revenue evasion in timber importing, such officials were acting primarily out of concern for the local population, rather than self-interest.

The state was slow to take notice of this burgeoning illegal timber trade in Madura, but eventually it did so; and when it acted, many of the Madurese entrepreneurs affected felt a genuine sense of grievance and victimization, a natural reaction given their limited comprehension of the relevant law. Telaga Biru and Pagar Batu rapidly succumbed, with local financiers fearing to back illegal ventures because of the danger of official reprisals, but also unwilling to back legal shipments because they could not compete on the market against the cheaper illegal timber still getting through. The timber economies of these two centres thus foundered on the rock of competitive individualism for which the Madurese are renowned.

Only in Sepulu did the timber trade survive, through the efforts of strong and enlightened leaders who forced all the local timber importers to sell for the same price, with none undercutting the others. Yet even in Sepulu the prospects seem poor, because of the high regional taxes now imposed in Kalimantan coupled with the severe decline of the forest resource in the area upon which the Sepulu entrepreneurs have most depended in recent years, Sungai Kaki. The boom period of the 1990s will never return, and those Sepulu vessel operators without a trading interest are receiving returns too low to enable them to continue in business much longer. They cannot increase their charges much, for if the Sepulu importers cannot keep their prices competitive, their customers in Java will simply turn to Pasuruan, Surabaya or Gresik for their timber.

But while the Sepulu entrepreneurs are now particularly hard-pressed, the spectre of serious depletion of Kalimantan's forest resources looms over the entire Java Sea timber trade. There is no doubt that the Kalimantan timber industry has passed its peak, and within the trade this is reflected not so much in the quantities of timber being landed in Java as in the declining quality of the timber. In this respect Sungai Kaki may be a grim harbinger of bleak times to come, in keeping with the general pessimism in environmentalist circles about the future of Kalimantan's forests. But it is also possible that large-scale importation of timber from Kalimantan to Java may continue for much longer than generally expected. Certainly large diameter stems will be increasingly difficult to obtain, and this will impact upon the foreign export trade as well as the domestic trade. But for general construction use, significantly lower quality timber will often serve adequately. This reliance on lower grade timber has already been under way for several years, notably from Samuda, a port much used by Madurese vessels. That does not mean it is sustainable, as such timber is often harvested from previously logged stands, with an insufficiently long interval between cuts. A large-scale sustainable timber industry seems a remote possibility indeed, but it is nevertheless possible if local groups become seriously involved in the management of the resource. Unfortunately, oil palms offer quicker investment returns than do trees grown for timber, and the current obsession in Central Kalimantan with development of the palm oil industry does not augur well for the future of the forests.

Even with the most optimistic scenario, however, the vessel operators of Madura cannot remain solely dependent on timber, and they must diversify if they are to remain in business. The Bugis have achieved such diversification, so that their role as shipping providers is now little different than that of *Lokal* vessel operators. But the Madurese have not yet proceeded very far toward such a transition. A few Madurese entrepreneurs have admittedly taken their place alongside the Bugis, with large vessels regularly carrying cargo on both outward and inward legs of each round voyage, but they are very much the exceptions.

Significantly, these most successful Madurese vessel operators all come from the islands of Sapudi and Giligenting. Notwithstanding that many other vessel operators in those two places, and especially in Sapudi, have been unable to secure freight work in recent years, this geographic concentration of vessel operators making a successful transition into the world of modern shipping is not by chance. The maritime economies of Giligenting and Sapudi have in fact always been more broadly based than those of the northwest coast or Sampang-Sreseh. This is no doubt connected with the island natures of Giligenting and Sapudi, by comparison with places along the coast of the much larger 'mainland' of Madura. But there is also a possibly significant historical factor. As a consequence of its of its importance as a trading centre and as a conduit between eastern Indonesia and Java,

Sumenep long ago became the cultural melting pot of Madura, with Chinese and Arab entrepreneurs settling around the town of Sumenep, and Malay and Bugis seafarers on the smaller islands to the east. Oral evidence of Malay or Bugis settlement is difficult to find these days, except on the more recently-settled furthest islands of the Sumenep archipelago, which are of no concern to this study. But evidence does exist in the form of the vessels of the Sumenep sailors, with numerous craft of Sulawesi origin, including *pajala* and *padewakang*, in Sumenep during the mid-nineteenth century. There were also many other vessels based on the Malay-Javanese *pencalang*, and in this respect it should also be noted that there is strong reason to believe that many Javanese skippers were based in Sumenep.

The diversity of this maritime culture of Sumenep became obscured in the late nineteenth and early twentieth century with the disappearance of these various perahu types and their replacement by the *letelete*. But the hybrid nature of the new type bore witness to a rich cultural mix, with features suggestive of input from both the Sulawesi and Javanese traditions as well as from Madura itself. Certainly, the *letelete* had nothing in common, other than certain ornamental features, with the purely indigenous vessels of West Madura.

Considering this evidence, it seems reasonable to conclude that the maritime culture of Sumenep was significantly influenced by seafaring outsiders, who being in a minority as well as physically similar to the local inhabitants, soon merged with them and disappeared as a separate ethnic group. The influence of these outsiders was manifested not only in the types of vessels used, but also in the maritime livelihood of the islanders, and their perception of themselves as seafarers.

No such outside influence can be discerned in West Madura, where despite the closer proximity to Java the main seafaring communities have remained culturally isolated. By comparison with Sumenep, the traditional vessels of West Madura were also less involved in long distance trade, and more limited in the types of cargoes they carried. Indeed, without their main cargo lines, salt on the south coast and fish, cattle and human passengers on the north coast, the fleets of Sreseh, Sepulu and Telaga Biru would probably not have survived long enough to be able to take advantage of the timber boom.

Although with the stimulus of the timber trade the *janggolan* and *golekan* were replaced by new models, modernization of vessels in West Madura has generally lagged behind the developments in the fleets of Giligenting and Sapudi. In the development of their traditional vessels, and especially their sailing rigs, which were incomprehensible to outsiders, the mariners of West Madura had shown themselves to be remarkably independent and resourceful. But that independence and resourcefulness, which had served them so well from the mid-nineteenth century onward, are not in themselves sufficient to enable them to meet the challenges they now face from more modern types of shipping and an increasingly regulated bureaucratic environment. Not only do they lack the skills to enable them to take

optimal advantage from modern navigation and engineering systems, but they have also failed to develop new networks which could assist them to broaden their economic base. Capital is of course a major barrier, far more so than in the era of the traditional vessels. Syndicates could provide a means to overcoming this problem, if the barriers of mistrust can be set aside. But the more pressing disadvantage, and the one which moreover remains largely unperceived among these seafarers of West Madura, is their generally low level of formal education. For education is the key not only to technological progress, but also to the building of the business and bureaucratic networks which are essential for success in modern Indonesia.

The same problems of limited capital and education also apply in Giligenting and Sapudi, but to a lesser extent. More significantly, the most successful entrepreneurs in those places have by their examples inspired others around them and shown the way forward. By comparison with this progressive approach, gearing up to meet the demands of the modern world, the perahu communities of West Madura have experienced a prolonged economic involution from which they seem unlikely to emerge. It thus seems that those transport vessel operators of Madura who are the most 'Madurese' in their attitudes are the least likely to retain their role as a significant part of the Indonesian shipping system through the twenty-first century.

Appendix 1

*Golekan, janggolan, and leletele*¹

The three traditional vessels used for the greater part of the twentieth century by the seafarers of Madura, namely the *golekan*, the *janggolan*, and the *letelete*, stand apart from other contemporary traditional perahu types. Whereas the vessels of Sulawesi, and also those of the Butonese, were built by dowelling together short pieces of wood hewn to the desired shape, with no bending involved, the Madurese builders used long planks, bending them over fire prior to attaching them in place. In this respect the Madurese used the same technique as did the Javanese; but the basic Javanese vessel type, as represented by the ubiquitous *mayang*, was quite different in that it had chined sections (having distinct angles in cross-sectional shape), rather than the fully rounded hulls of the Madurese, and was reinforced by a series of bulkheads. The Madurese did adopt this type for some of their fishing vessels, but not for their main transport craft.

In contrast to the broad and shallow *mayang*, the fundamental vessel of Madura was the *bedouang*, a double-outrigger canoe. The largest versions of these had planked hulls and a rather ‘boat-like’ form by comparison with the pure dugout canoe, and a capacity of several tons. This outrigger ancestry is most obvious in the case of the transport perahu of northwest Madura, the *golekan*. Not only was the hull shape of the *golekan* less burdensome than most other perahu types, but more significantly, the sailing rig was directly derived from that of the *bedouang* (or *paduwang*).

The *bedouang* had two masts, one just inside the bow and the other about one-third of the way aft. The masts were very short, and the rig was extended by two long bamboo yards. These yards were very flexible, so to enable sail to be carried the upper ends were supported by vertical poles, which were secured upright by rope stays attached to the ends of the outrigger arms (Figure 1). This same arrangement was used by the builders of the *golekan*, except that as there were no outriggers, a stout beam was extended outboard to provide the same low angle for the rope stays supporting the upper ends of the yards. Two beams were used, one for each side, with the one not in use slid inboard so that it would not drag in the water (Figure 2). In port both beams were brought inboard.

¹ This appendix does not provide detailed technical description of these vessels. Rather, the information it contains is of historical and cultural significance, intended to supplement the coverage given in Chapter Four.

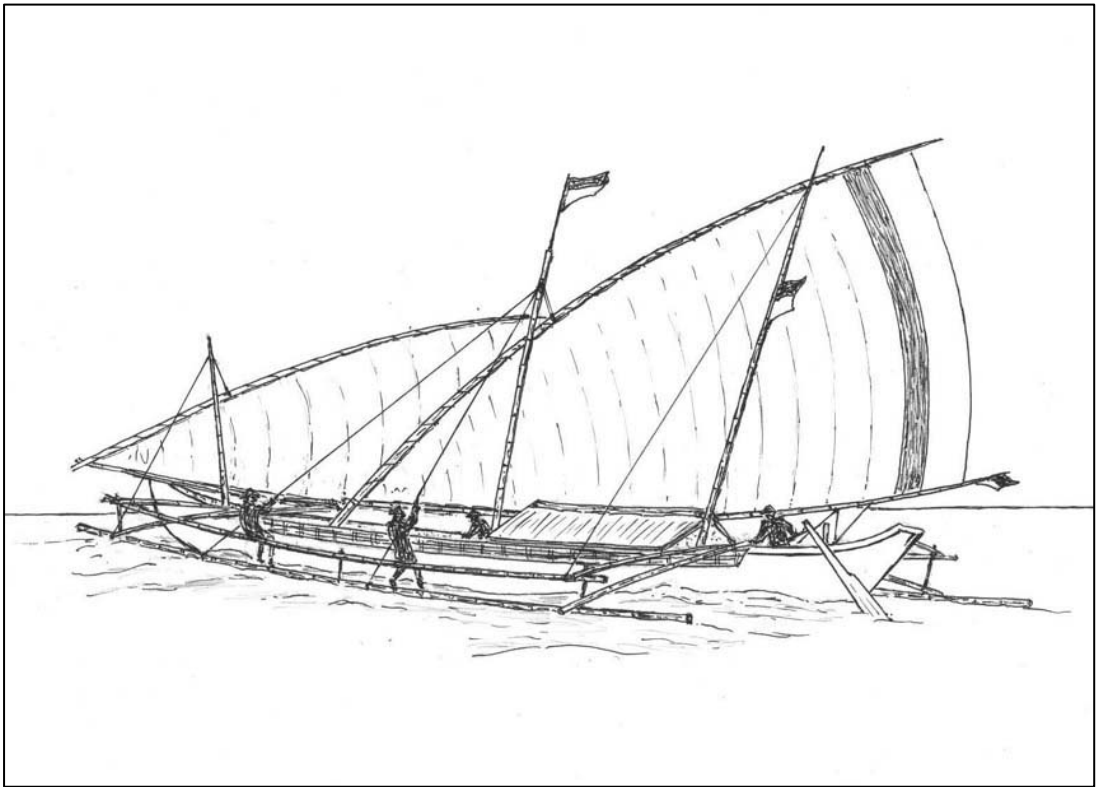


Figure 1: Large outrigger trader in Madura Strait in 1856, from a painting by Thomas Baines.

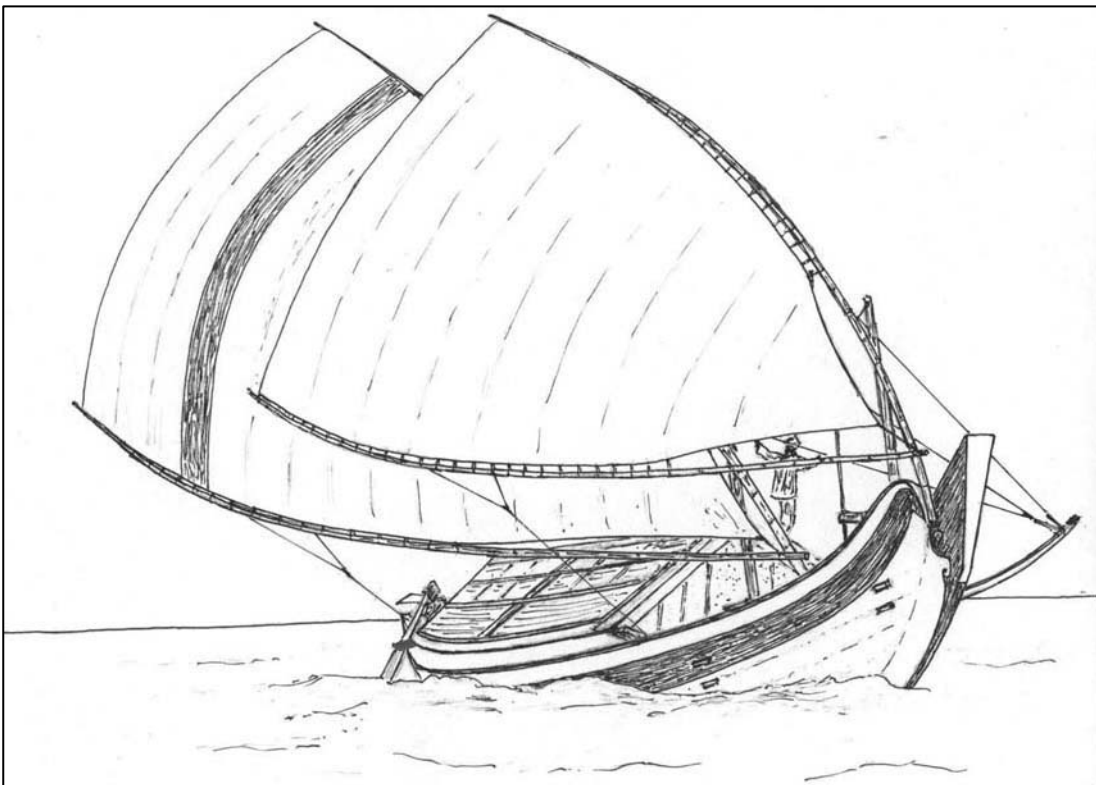


Figure 2: *Golekan* leaving Singapore in about 1925, from a photograph by W.M. Blake.

The shift away from outriggers was a natural development as the builders produced more capacious hulls for transport purposes, coupled with the inconvenience of outriggers in port. The large transport *bedouang*, common in the mid-nineteenth century, disappeared in the early decades of the twentieth century, apparently not long after the emergence of the *golekan*.

Bedouang came in two versions, one with conventional ends, and the other with bifid ends, and this dichotomy was carried over into the new fuller-bodied boats without outriggers. The bifid-ended vessels were given the affectionate nickname of *alisalis* (often shortened to *lisalis*), which means literally ‘eyebrows’. This name may have been given with reference to an ornamental motif which does resemble a pair of eyebrows, often applied to the top of the bow. In any case, eyebrows are an important aspect of feminine beauty in traditional Indonesian culture, and these boats were in fact strongly associated with the feminine – so much so that they were commonly referred to on the northwest coast as *parao bini*, ‘female boat’. They were never coarse of build, and the best were exceptionally graceful craft, and decorated or ‘made up’ like a woman, to look her finest. The counterpart vessels, with conventional ends, were correspondingly referred to as *parao laki*, ‘male boat’. These were also given much decoration, but the overall effect was one of



Photo 39: Small *alisalis* at Telaga Biru. For very small craft like this a single outrigger beam is used, rather than two separate beams as on larger vessels.

austere handsomeness, in keeping with the cultural ideal of the male, with different ornamental motifs from those used on the *alisalis*. The primary symbol of the *parao laki*, or *golekan*, was the rooster (see Photo 6, Chapter Four), a symbol associated in Indonesian culture with combat and fearlessness.

Concerning the etymology of the name *golekan*, the Dutch observer van Deventer wrote that it meant ‘freight seeker’, adding that this was “an indigenous word which conveys more than a whole treatise” (1904: 110). That might have been so if van Deventer’s meaning had been correct, which it was not. A different explanation was offered by Gibson-Hill, who stated that the name is derived from the Malay word *golek*, which he claimed meant crank (tender, or ‘tippy’) when applied to a canoe; and that it was given to these vessels of Madura because in the early stages of development, when the hulls were presumably narrower and more canoe-like than they later became, they were rather unsteady in the water (Gibson-Hill, 1950: 126). There is a semblance of plausibility here, but the argument is wrong. In particular, if this etymology were correct, why was the same name not given to the equally crank *alisalis*, from the same locality?

Rather, the name is derived from the word *kolek*, a Javanese word for ‘boat’, applied to a wide range of small craft along the north coast of Java. It is also the name for the oldest and most widespread type of vessel in the *mayang* family, a type large enough for cargo work, and which predated the *golekan* of Madura by several centuries. With the abandonment of outriggers on the north coast, the term *golekan*, ‘[a kind of] *kolek*’, was used for the conventionally-ended ‘male’ boat, because it had a distinct stem and sternpost like the *kolek* of Java. On the other hand, this name was not given to the ‘female’ boat, because with its bifid ends it differed markedly from the vessels of the *kolek* type.

It is not clear why the *golekan* became the vessel of choice for long distance work. Certainly large *alisalis* would have been as capable, and at Tamberu on the central north coast, vessels of this type (called *jabar*) were used until the 1970s for voyages to Kalimantan. Small *alisalis* remained popular until recently as inshore fishing craft on the northwest coast, but no more of the type are being built there.

The vessel type of the southwest coast, the *janggolan*, is clearly related to the *golekan*, but its course of development was quite different. Unlike on the northwest coast, in the southwest of Madura the bifid-ended type was used virtually exclusively, except for small canoes. Indeed, until the present, the *alisalis* has remained overwhelmingly popular as a fishing craft in Bangkalan and Sukolilo, while a larger version, the *kroman*, has been used in this area for at least a century for inshore transport work. *Alisalis* are no longer found east of Sukolilo, but up until the 1970s they were formerly the small craft of choice as far along the coast as the Blega estuary. Bifid-ended boats were also found on the Java side of the

Madura Strait, possibly as a result of Madurese migration. However, the bifid-ended style is not recorded for the rest of the north coast of Java, the realm of the *kolek* and its relatives.

The sailing rig of the *janggolan* is a more highly-developed version of that used on the *golekan*. But although the rig is thus clearly derived from outrigger craft, there is no living memory, even of stories handed down, of outrigger transport vessels at either Sresih or Sukolilo. Nevertheless, in both places I interviewed elderly men who had a definite opinion on the origin of the *janggolan*. These men were all emphatic that the provenance of the type was not Madura at all, but rather a place in East Java called Jatisari. No one knew exactly where Jatisari was, but it was thought to be on the lower Solo River.

There is in fact a place called Jatisari on the lower Solo, about thirty kilometers from the sea in the *kecamatan* of Glagah. In 1999 there were motorized riverboats there, with bifid ends. They had no sailing rigs, were much narrower and less capacious than *janggolan*, and were roughly built. But the ends bore the same basic ornamental motifs as found on both *alisalis* and *janggolan*, although they were crudely done.

Could this place be the Jatisari of *janggolan* legend? The riverboats observed give at best only limited support for the idea. But the lower Solo is today a backwater; whereas a century and a half ago it was the major goods transport artery from the coast to the interior of Java, and plied by numerous vessels. These vessels were quite large, but relatively narrow of beam as befitting river craft. They had no fixed sailing rig, and were mainly moved with oars, poles, and ropes. They did however have bifid ends “with the fore and afterposts projecting high and outward beyond the hull proper” (de Bruyn Kops, 1854: 61).²

Vessels of this same type were also used as sailing lighters in the Surabaya roads, carrying goods back and forth between ships and the shore. The proportions were the same, with a beam of only eight or nine feet on a length of forty-five to fifty feet, which with the other evidence strongly suggests riverine origins. Fortunately, the sailing rig of these lighters was carefully described. They had two very short masts, one in the very bow and a larger one one-third of the way aft, and long bamboo yards, with the main yard supported at its upper end by a pole which in strong breezes was stayed to the end of a temporary outrigger beam (de Bruyn Kops, 1854: 64). This is exactly the same rig, in principle, as was later used on the *janggolan*. Indeed, there can be no doubt that these sailing lighters were the predecessors of the *janggolan*, and de Bruyn Kops’ description strongly supports the notion of these vessels originating from the lower Solo river.

The *janggolan* was thus not a direct development from outrigger trading vessels as occurred on the north coast, but was rather developed from ‘bulk carrier’ riverine perahu

² At that time the timbers projecting at each end of the bifid-ended *bedouang* were short and did not rise up steeply as later became the case with the *alisalis* and *janggolan*.

for use as a sailing lighter at Surabaya. In due course the type was copied by builders on the Madura shore, who made their own modifications to it while retaining its essence.

Other large vessel types might have served as well, but for the people of the strand villages of southwest Madura the *janggolan* exerted a special appeal, because of the elaborate ornamentation of the ends. This beautification of the vessels provided an avenue for artistic expression, but there was also a deeper cultural symbolism involved. Like the *alisalis*, the *janggolan* was regarded as ‘female’, and the ornamental motifs used were mostly connected with the feminine. Floral motifs predominated, and ‘flower’ names were very popular for the vessels. The motifs were arranged in a specific pattern, with considerable scope for variation in the finished forms so long as their essential character was unchanged. Master craftsmen developed their own signature styles, but the principal elements go far back into the Southeast Asian past, and examples of both their use on boats and their association with the feminine exist from the Sulu Sea to the Malay peninsula.



Photo 40: *Si Sekar Mendung* (‘Solemn Flower’), built by Haji Umar of Batuputih.

But why were these vessels called *janggolan*? In a brief description of the vessel type, the *Encyclopaedie van Nederlandsche-Indie* (vol. V: 432) notes that the name literally means ‘transport’ or ‘carrier-vessel’. However, Burningham and Mellefont, observers with extensive experience of Indonesian watercraft, cast doubt on this meaning. They suggest instead that the name may have come from *jang*, a particle word standing for ‘plank’ or ‘strake’, coupled with *olan* as a possible cognate for *ulang*, ‘repeat’ – “thus a *janggolan* is a vessel with (many) more strakes than a *lis alis*” (1997: 36). This argument is however unconvincing on linguistic grounds, for the resulting word would be *janggolan*, which would be pronounced quite differently, with no hard [g], from *janggolan*. Nevertheless, Burningham and Mellefont were justified in their skepticism of the meaning of ‘transport’, for the name *janggolan* is not known to have been used for any of the other transport vessels of Java and Madura, and nor is there any word *janggol* in Javanese or Madurese meaning ‘to carry’ or similar. No one in Sreseh or Sukolilo can explain the origin of the word. For the mariners of Sreseh, the term *parao janggol* means a vessel that is used for extended voyages to distant places; and this formerly contrasted with the term *parao pegon*, which was applied to vessels used for work in local waters, including to the far side of the Madura Strait. The name *pegon* was eventually dropped, but is still remembered by some elders.

The key to this conundrum lies, unexpectedly, in Bali. The main port there, Benoa, is situated on a broad natural harbour, with a fishing village, Tanjung Benoa, at the tip of an isthmus on the far side of the harbour. Until very recently, at least, the most common form of transport across the harbour was by small open ferry boats, called *janggolan*. It is hardly likely that this name was given because of any link with southwest Madura, and the vessels bore no resemblance at all to the *janggolan* of Madura. Indeed, the hull shape was not indigenous at all, and was much like that of nineteenth century European ship’s boat, including with a central rudder. Benoa is not one of the major ports of the archipelago, as it is inconveniently located, and is these days it is used mainly by fishing vessels, pleasure craft, and the occasional tourist ship. But in the middle of the nineteenth century it became a bustling place after a Danish trader, Mads Lange, opened a very successful entrepot business at nearby Kuta (Nordholt, 1981: 29-30). In the heyday of this entrepot numerous European ships called at Kuta, and naturally there was a great need of small vessels for lightering and general ship-to-shore work. Taking into account the origins of the *janggolan* of Madura as a sailing lighter in the ports of Surabaya and Gresik, it thus is very likely that the use of the same name for the small ferries of Benoa harbour is a legacy of the period of the Kuta entrepot.

In conclusion, the word *janggolan* was originally a colloquial term for a transport vessel, but of a particular type: one engaged in some sort of local shuttle service between

ship and shore. It was apparently also used sometimes for local passenger services on land in Java,³ but has since fallen into disuse.

The development of the third major traditional type, the *letelete*, is more obscure. Although a wide a wide range of perahu types were found in Sumenep waters during the mid-nineteenth century, the *letelete* was not among them. The main trading perahu included vessels with European influence, such as the *toop*; vessel types which had originated from South Sulawesi, such as the *pajala* and the larger *padewakang*; and most importantly, several types of vessel showing Javanese and Malay influence. Among the latter was the *pencalang*, a Malay trading vessel which had found strong favour along the north coast of Java, and even in Makassar. The Javanese examples of this type were called *cemplon*, while the Madurese developed their own version, the *kacik*.

None of these vessels showed any direct development from outrigger craft. There were plenty of outrigger craft in East Madura, but the change to larger capacity trading vessels had taken place much earlier. It is probable that this change had not been an ‘evolutionary’ process, as occurred in the vessels of West Madura, but rather one of replacement of outrigger vessels by unrelated vessel types.

By about the late nineteenth or early twentieth century, this great diversity of perahu types changed with the emergence of the *letelete*. As this new vessel gained rapidly in popularity, the vessel types from Sulawesi disappeared from Sumenep waters, while the *kacik* also declined in popularity against the *letelete* until it too disappeared.

Why did this happen? What were the factors behind the development and the ascendancy of the *letelete*?

Certainly, the *letelete* was not a direct development from the *golekan* of the north coast, as has been assumed by some observers. Technically it could be described as a *golekan*, as it had conventional ends, like the boats of Java, and this name was sometimes formerly used in Sumenep for the *letelete*. But whereas the *golekan* of northwest Madura was a purely indigenous invention, the *golekan /letelete* of East Madura was much influenced by other maritime cultures.

First, the sailing rig was completely different from that of the true *golekan*. It was essentially a single-masted rig, although a small foresail could be used as well, and it was free standing, without the complex staying arrangement of the vessels of West Madura. The mainmast was taller and much stouter, while the main yard was also much stiffer, being a ‘laminated spar’ of two or more large bamboo poles lashed together very strongly – a

³ Pers. comm., Professor A.M. Djulianti Suroyo, Diponegoro University, Semarang, 24/01/2001.

technique indigenous in Java. The methods of sail handling, including tacking, were also quite different from those used in the trading vessels of West Madura.

Second, the hull was quite different from that of the northwest *golekan*. The shape was relatively broader and shallower, and fuller toward the ends; the shell was reinforced with heavy grown frames, as in the European tradition, rather than the archaic system of thwarts notched through the hull; and perhaps most telling of all, the plank structure was different. In particular, the shape of the garboard (the first strake, or run of planking, from the keel, which has a major bearing on the subsequent plank pattern) was different from that found on the vessels of West Madura.⁴

On the other hand, the aesthetic detailing of the *letelete* was very similar to that of the northwest *golekan*, particularly in the common use of a swirling motif, the *okelan*, on the stem and stern posts, and a small swept-up finial just inside the stem and sternposts which corresponded to the larger scroll-shaped finials on the north coast vessel. Considering the facts, it seems that the development of the *letelete* was a case of the indigenous maritime culture asserting itself, while taking desired features from external sources.

The dominant type of trading vessel, which certainly predated the *letelete* by a century or more, was the *pencalang*, or *cemplon* as it was called in Central and East Java. This vessel had thoroughly proven itself as both a load carrier and seaboat over the two previous centuries, and was deservedly popular with the Bugis and Makassarese as well as with the Javanese and Madurese. In its Madurese version, the *kacik*, it was a striking vessel as well, and it was thus unlikely that the *letelete* could have displaced it on aesthetic grounds.

The shift away from the *cemplon* / *kacik* and toward the *letelete* was primarily for economic reasons. The *kacik* was an excellent vessel for trading purposes, but it was not easy to build for men coming from the vessel building traditions of both Madura and Makassar, for the forefoot was deeper and more angular than in the traditional vessels of both areas.⁵ However, for the vessel builders of Rembang, with centuries of experience in a wide range of indigenous and European styles behind them, such a shape posed no difficulty. Consequently, at the start of the twentieth century it was common practice for men from the south coast of East Madura to purchase old *cemplon* from the Rembang area, and to repair and modify them (as *kacik*) in Madura.

⁴ In the early 1980s, when there was a strong demand in Sreseh for the building of *janggolan*, two boatbuilders were hired from Giligenting to help with this work. These two men had never built a *janggolan* before, but no problems were anticipated as they were both accomplished craftsmen of long experience. However, to everyone's surprise, they gave up after two weeks and returned to Giligenting, because of the difficulties they encountered in fitting the garboard on a new vessel.

⁵ For example, the Bugis were formerly unable to build the *lambo*, which had a very deep forefoot. Until the present, the art of building an angular forefoot with a handsome shape, such as on the *kacik*, has been mastered by few builders in both Sulawesi and Madura.

The *kacik* also had much aesthetic embellishment, especially in the form of ornamental carvings which were considered an integral feature of the type, and only specialist craftsmen could do this work. Such men could be found at Karduluk, a village on the south coast of Sumenep famed for its wood workers, and a nearby village, Aeng Panas.⁶

For the vessel owners of the south coast of Sumenep, with their love of decorative carving work, the complication and expense involved in obtaining the services of specialist craftsmen was apparently acceptable. But for their counterparts in the Sapudi islands, where the *letelete* was first developed, such preoccupation with the aesthetic was a luxury tempered by economic necessity. The Sapudi group – which includes Ra’as and Guwaguwa – was also further removed from the influence of the high culture of Sumenep, and at the same time closer to the communities of Bugis and Makassarese who had settled in the



Photo 41: The stern of the last *kacik*. The bow is similarly ornate. The central carved slab is all that remains of this vessel, and is kept in the house of the late owner’s sister in Talang.

⁶ The last *kacik* in operation was one of three similar vessels owned by a man named Pak Ntoh, of Talang, Pamekasan; all three had been built by a man from Aeng Panas.



Photo 42: *Letelete* from Sapudi, showing the low bulwark adopted from the Malay-Javanese *pencalang* family of vessels.

Kangean islands. Certainly, ornamentation of vessels was never as important in the maritime culture of South Sulawesi as it was in Madura.

The mid-section of the new vessel, the *letelete*, resembled that of the *kacik*, but the ends were more raked, and there was no angular forefoot. Nevertheless, clear evidence of influence from the *kacik* was provided by the low open bulwarks, formed by all the frames in the main part of the vessel being extended above the deck. This was a distinctive feature of the *pencalang* family of vessels, but not one associated with the traditional vessels of Sulawesi, or with the *golekan* of West Madura. Another feature borrowed from the *kacik* was the small square-shaped ‘doghouse’ at the after end of the gabled main deckhouse; although it was not used on the Sapudi vessels, this ‘doghouse’ became standard on the *letelete* from Giligenting and the other inner islands. But all the elaborate ornamentation of

the *kacik* was dispensed with, leaving a rather plain craft except for the features at the ends taken from the north coast *golekan*.

The *letelete* was thus a successful design because it was significantly cheaper to build than the *kacik*, while retaining the carrying and sailing qualities of the latter, and even improving upon them. The absence of the very long bowsprit of the *kacik* must also have been a convenience in port.⁷ The *letelete* became so highly regarded that it was adopted not only by the sailors of the inner islands of Sumenep, but also by the Bugis and Makassarese sailors in the Kangean area, and even spread from there to South Sulawesi.

The origin of the term *letelete* is not known. It was probably a nickname which became popular because it distinguished this new sort of *golekan* from the more traditional vessel of the same name. In the early twentieth century the type was referred to in different publications as *tekletek*. This is however the same name, with the first syllable dropped: [*le*]tek-letek, as in [*a*]lisalis.⁸ Piollet (1995: 82) notes that the name *magonan* was also sometimes used at Giligenting for these vessels; this name was possibly from the word *pegon*, which was formerly used in Sampang-Sreseh to denote a small to medium transport vessel, for use in the Madura Strait.

⁷ See Photo 17, page 106.

⁸ Such fore-truncation of repeated names is a common feature of Madurese. The [k] as written stands for a glottal stop, as in *nasik*, a spelling formerly encountered on menu lists of some small eating establishments, for *nasi* ‘rice’.

Appendix 2

The Kalimantan-Java timber trade in perspective

Although sawn timber has been imported into Java in large quantities since at least the late 1960s, it is difficult to know the actual extent of this traffic. Statistics are compiled for each of the major ports, but these should not be relied upon as accurate. Hughes (1986) has shown just how misleading were the statistics concerning timber landed in the port of Kali Baru for 1981, and there is no reason to assume that the statistics from other ports would have been less inaccurate. Since that time, however, the timber transport regulations have been revised and far more vigorously enforced, so that gross understatement of the volume of timber cargoes has been greatly reduced. But although port statistics for timber landed are consequently less wild than they once were, they should still not be accepted unreservedly.

Statistics of timber landed are taken from information supplied by shipping agents to port authorities concerning each vessel which enters port. Broadly speaking, the 'manifest statement' supplied by an agent will agree with the amount of timber stated on the SKSHH document. Manifests carried by *Rakyat* vessels do not necessarily state the amounts of timber carried. The amount stated on SKSHH documents is however often considerably less than the actual amounts carried. Compliance with the timber transport regulations was reportedly high in some ports during 2002-3, but in the case of the Central Java ports, and Pasuruan in East Java, SKSHH figures were often for only 50 percent or less of the total cargo, with inevitable confounding of statistics of timber landed.

To undertake a comprehensive survey of the volume of timber coming into Java is a considerable task, and beyond the scope of this study. Figures for recent years were however obtained for the ports of Telaga Biru, Sepulu, Pasuruan, Surabaya, Gresik, and Juwana, and these are presented below, together with comments as appropriate.

1. Telaga Biru

	<i>Vessel calls</i>	<i>Total GT</i>	<i>Total timber (m3)</i>	<i>Cattle (outward)</i>
1995	140	10,455	1,820	9,807
1996	114	8,807	1,962	9,505
1997	134	n.k.	2,289	12,527
1998	122	n.k.	1,300	13,545
1999	131	n.k.	1,641	n.k.
2000	105	n.k.	2,758	7,958
2001	133	11,650	2,789	9,600

Source: *Laporan Tahunan* (Annual Reports), Telaga Biru Harbourmaster's Office.

Comment. Up until 2000, statistics for the port of Telaga Biru were compiled for years from April to March the following year (thus 1995, as shown, should really be 1995-96). Activity was usually quiet for January and February, however. In 2000 the administration changed to a January to December system, which explains the lower figures shown for that year. The pattern here is very consistent, but in 2002 it was disrupted by tough enforcement of the timber transport regulations, with no vessels entering the port at all for the months of January, February, March, May, and August. Full statistics for 2002 were not available at the time of fieldwork.

The annual volumes of timber landed seem far from the reality. Gross tonnages are fairly large, averaging from 72 to 87 for the years for which this information was given.¹ This suggests an average vessel capacity of around 200 cubic metres, which is in keeping with the size of the vessels based at Telaga Biru; yet according to the official figures for 2001, for example, the average inward timber cargo was a mere 21 cubic metres!

¹ These gross tonnage figures are only for perahu (KLM), and exclude occasional small ships which call at Telaga Biru to discharge or load oil.

2. Sepulu

	<i>Vessel calls</i>	<i>Total GT</i>	<i>Total timber (m3)</i>
1995	656	8,861	4,844
1996	683	n.k.	5 629
1997	689	n.k.	6,778
1998	481	n.k.	4,386
1999	440	n.k.	3750
2000	421	n.k.	3,396
2001	318	2,358	1,467

Source: *Laporan Tahunan* (Annual Reports), Telaga Biru Harbourmaster's Office (the port of Sepulu is administered through the Telaga Biru Office)

Comment. As for Telaga Biru, the statistical year was from April to March until 2000, when it was changed to January to December. This change did not however result in any significant distortion of the annual figures, since January, February and March are quiet months in Sepulu, with the fleet lying over at Kamal on the south coast. Rather, there seems to have been a steady decline in traffic from 1998 onward. It is unfortunate that gross tonnage figures were only obtained for 1995 and 2001, but these figures nevertheless make an interesting comparison with the tonnage figures for nearby Telaga Biru. Whereas the Telaga Biru gross tonnages averaged from 72 to 87, in Sepulu the average gross tonnage was only 13.5 for 1995, and 7.4 for 2001. The Sepulu vessels were generally smaller than those of Telaga Biru, but certainly not by such a factor as these figures suggest.² The more significant statistic here, the volume of timber landed, is even more suspicious. Sepulu vessels in 2002 carried between 50 and 300 cubic metres, with a typical cargo of around 100 cubic metres. Yet the figures for 2001 indicate an average cargo of only 4.6 cubic metres! That year was disrupted by the ethnic clash in Central Kalimantan, with a possible consequential distortion of the figures; but the previous year's figures show an average cargo of only 8.0 cubic metres, while even the highest annual average cargo, that for 1997, was a mere 9.8 cubic metres according to the figures given. As with Telaga Biru, the official figures for timber landed thus appear to be too low by a factor of five to ten. It is however uncertain to what extent these statistics correlate to the degree of legality of timber cargoes landed at Sepulu.

² Concerning understatement of gross tonnages, see Appendix 3.

3. Pasuruan

	<i>Vessel calls</i>	<i>Total GT</i>	<i>Total timber (m3)</i>
1995	3,018	n.k.	105,466
1996	3,073	n.k.	113,369
1997	2,885	69,212	118,075
1998	2,957	65,756	97,947
1999	2,923	87,429	190,619
2000	3,213	96,068 *	288,204 (?)
2001	3,094	92,510 *	277,530 (?)
2002 **	2,585	76,557	229,671 (?)

* calculated on average GT figures for 1999 and 2002

** extrapolated from figures for the first nine months of the year.

Source: Port Records, PT Pelindo III, Pasuruan, and the Pasuruan Harbourmaster's Office.

Comment. Data was originally obtained from P.T. Pelindo III, a state corporation which handles port statistics, for the years 1995 to 1999. However, staff at the Pasuruan Harbourmaster's Office expressed the view that the PT Pelindo III records were not accurate for the total volume of timber landed, and that the total volume of timber should be obtained by multiplying the total gross tonnage by three. This method has been used above for the years 2000 to 2002. As noted in Chapter Two, sawn timber stows only at about two cubic metres per gross ton, but substantial amounts are carried on deck, outside the measured capacity, so that the method of multiplying by three should give a figure fairly close to the actual volume carried. But the gross tonnages themselves are in some cases inappropriately small, so that even this liberal approach may not give a realistic figure. Vessel sizes at Pasuruan range from about 40 to 300 cubic metres capacity, with most in the 80 to 150 cubic metre bracket. All vessels carry maximum loads. Assuming an average capacity of 100 cubic metres – a conservative estimate – the total volume landed would have been around 250,000 cubic metres in 2002, and around 300,000 cubic metres for the several years prior to that.

4. Surabaya

	<i>Vessel calls</i>	<i>Total GT</i>	<i>Total timber (m3)</i>
2000	1199	173,438	520,314 (?)
2001	1134	164,323	492,969 (?)
2002	1334	176,392	529,176 (?)

Source: *Laporan rekapitulasi kegiatan bidang Kesyahbandaran* (Recapitulation Reports of Harbourmaster's Office Activities), Tanjung Perak, Surabaya.

Comment: The vessel calls and gross tonnage figures are for *Pelayaran Rakyat* vessels only (numerous ships also call at Tanjung Perak). The great majority of these are Bugis vessels of relatively large size; for 2002 the average gross tonnage was 132, compared with 29.6 for Pasuruan. Information was not available on the volume of timber landed, and the figures shown are a crude estimate based on the method used for Pasuruan.

5. Gresik

	<i>Vessel calls</i>	<i>Total GT</i>	<i>Total timber (m3)</i>
2001	1987	259,757	779,271 (?)
2002	1352	141,904	425,712 (?)
2003	1276 *	139,423 *	418,269 (?)

* extrapolated from figures for the first five months of the year.

Source: *Data Kegiatan Pelabuhan Gresik* (Data for activity in the port of Gresik), Gresik Port Office.

Comment. Ships also call frequently at Gresik, and the data shown is for *Rakyat* vessels only. No information was available on the volume of timber landed, and the figures shown are a rough estimate as for Surabaya.

6. Juwana

	<i>Vessel calls</i>	<i>Total GT</i>	<i>Total timber (m3)</i>
1995	386	n.k.	28,976
1996	472	n.k.	38,186
1997	557	n.k.	47,396
1998	644	n.k.	56,606
1999	731	n.k.	65,816
2000	820	n.k.	75,030
2001	650	n.k.	60,067
2002	644	n.k.	47,476

Source: *Kunjungan kapal niaga dan dan bongkar-muat barang antar pulau di Pelabuhan Juwana* (Inter-island trading vessel calls to the port of Juwana, and goods discharged or loaded), Juwana Port Office.

Comment. The figures for timber are taken from the annual totals of ‘goods discharged’ at Juwana, as there is virtually no other incoming cargo to the port. (Juwana is an important fishing port, but different statistics apply to fishing vessels.) The size of cargoes is very consistent across the period, averaging 85 cubic metres overall. Some vessels calling at Juwana do have capacities of only this much, but most certainly carry more; and given that vessels calling to Central Java commonly obtain SKSHH documentation for only 50 percent of the amounts actually carried, the real volume of timber landed at Juwana would probably be at least double that shown here.

7. Kali Baru

The only figures obtained for Kali Baru were vessel calls for the first half of 2003. During this time there were 425 calls, with an average of 83 for the months of March through until June. Using this as a basis, it is probable that the total number of calls for 2003 would have been around 900. As the Kali Baru vessels typically carry about 800 cubic metres of timber, it is a reasonable assumption that the annual total landed for 2003 would have been in the vicinity of 900,000 cubic metres, and for the busier years of 2000 and 2001, probably over 1,000,000 cubic metres.

Conclusion


Working from the figures presented here together with observations of most of the timber ports of Java, I estimate that the total amount of timber imported from Kalimantan into Java for each of the years 2002 and 2003 would have been in the

vicinity of three million cubic metres. This excludes logs carried by barge for processing into plywood in Gresik and possibly elsewhere, although most plywood factories are in Kalimantan. Three million cubic metres annually is a very large amount of timber, but this figure needs to be considered against the total annual wood take for Indonesia, which has been seriously estimated as being up to 100 million cubic metres, with the greater part of that being illegal. Much of this massive wood take has been for wood processing industries, especially plywood and wood pulp. There is no doubt that the wood processing industry has been over-capitalized, with unsustainable demands on the forest resource as a result.

The sawn timber carried by *Rakyat* vessels from Kalimantan to Java is a very conspicuous trade, and certainly the most visible of all the major avenues of wood consumption in Indonesia. However, it is only a small percentage of the overall wood take from Kalimantan. It is also arguably the most important avenue of consumption, as the timber is used mainly for general construction work, which is the most fundamental, and enduring use of wood, with benefits for a wide range of the population. By comparison, most of the products of the various wood processing industries are less durable, some very much so, and the economic benefits of these major wood-consuming industries have gone mainly to a relatively small group of wealthy investors.

Appendix 3

The 'small ship' pass, and tonnage



PAS - KECIL

**REPUBLIK
INDONESIA**

NO. 705.-

Yang bertanda tangan di bawah ini SYAIBANDAR PASURUAH menyatakan bahwa

NAMA KAPAL	TANDA PAS	TONASE KOTOR (GT)	UKURAN P x L x D (m)
" " HARTA JAYAH "	J.139	6	10.70 x 3.00 x 1.20

PENGGERAK	MEREK, TK / KW	BAHAN UTAMA	JUMLAH GELADAK	TAHUN PEMBANGUNAN
Layar	-	Kayu	1(satu)	1986

Dipergunakan sebagai : Kapal H I A G A

Nama dan alamat pemilik : H. MUHYIDDIN

telah didaftarkan dalam Register Pas Kapal di B R A N T A

dengan nomor J.139 No.705.- dan oleh karena itu berhak berlayar dengan mengibarkan bendera Republik Indonesia.

Kepada seluruh pejabat Republik Indonesia dan mereka yang bersangkutan diharap supaya memperlakukan nakhoda, kapal dan muatannya sesuai dengan ketentuan Undang-Undang Republik Indonesia dan Perjanjian-Perjanjian dengan Negara-negara lain.

Berlaku sampai tanggal 5 - J U L I - 2000.-

Diberikan di : P A S U R U A N

Pada tanggal : 5 - J U L I - 1999.-

Atas MENTERI PERHUBUNGAN
DIREKTORAT PERHUBUNGAN LAUT
S Y A I B A N D A R
KANTOR WILAYAH PASURUAH
ASALUS SAHUSI.-
KANTOR WILAYAH PASURUAH 20044657.

DKP1-01

The *Pas – kecil* is the operating permit for small vessels. According to the above example, the vessel concerned, *Harta Jaya*, is 10.7 metres in length, 3.0 metres in beam, and 1.2 metres hold depth, with a capacity of six gross tons (GT). The method of propulsion is by sail alone, the primary cargo is timber, and the vessel was built in 1986. It is registered in Branta, Madura.

The point of interest is that the vessel is in fact considerably larger than indicated. A vessel of six gross tons should have a maximum capacity of about twenty cubic metres of timber, but *Harta Jaya* carries more than six times that amount. The actual dimensions are approximately twenty-two long (excluding the bowsprit), seven metres wide, and a hold depth of well over two metres. There are sails, but the main power comes from a six-cylinder diesel engine.

This document is not the same as the vessel's measurement certificate (*surat ukur*), for which actual measurements are taken by an official. The reason for the gross understatement of the size is to enable the owner to pay a minimal rate for using a port. In West Java and Central Java this document would not be accepted as proof of a capacity of only six gross tons, and the vessel's measurement certificate would be demanded. But in Pasuruan, where this pass was issued, the stated tonnage is accepted.


Such understatement of vessel size on passes is common in Pasuruan, at least. But this should not be thought of as corruption, in the usual sense. The owner was emphatic that he did not request anything untoward, and that he paid only the standard amount. Rather, this is an example of a fairly widespread culture of sympathy within the Department of Marine Communications toward *Rakyat* vessel operators, many of whom operate under difficult economic conditions. Such understatement of vessel capacity does however have significant statistical implications. The figures shown in Appendix Two for timber landed in Pasuruan for 2000 to 2002 are estimates based on the total gross tonnage of incoming vessels; but as the gross tonnage is so frequently understated, even this liberal adjustment is probably well short of the actual amount of timber coming into the port.

Not all vessels using Pasuruan have understated tonnages. In the case of vessels from Sumenep, for example, the tonnages are generally appropriate. On the other hand, I have observed grossly understated tonnages even in Jakarta, such as a nearly new two-masted Bugis vessel with a reported – and believable – capacity of 1,500 cubic metres, and a registered gross tonnage of only 172. According to the manager of the Pelra office at Sunda Kelapa, such cases are 'manipulated' to reduce costs. Such understated tonnages were formerly convenient to conceal the actual amount of timber carried, but these days Airud police and port forestry officers are much more aware of the real capacity of vessels.

Appendix 4

The timber transport permit


Nomor Seri : DC 0689644



DEPARTEMEN KEHUTANAN
DIREKTORAT JENDERAL BINA PRODUKSI KEHUTANAN

SURAT KETERANGAN SAHNYA HASIL HUTAN (SKSHH)
(UNTUK)
Kayu Olahan

Berlaku Limahari, dari tanggal **19-11-2002** s/d **23-11-2002**



Dinas Kehutanan Propinsi : **Kalimantan Selatan.**
Dinas Kehutanan Kota/Kabupaten/CDK : **Tanah Laut.**

Asal Hasil Hutan : **UD. Bahagia Setia Bakti-**
Nama dan Alamat Lengkap : **PT. Kayan Jaya Tanjung.**
Kantor Perusahaan Pengirim / : **Jl. Margomulyo Indah B.58**
Penjual / Perorangan : **Surabaya Jawa Timur.**
Usaha : **Usaha Ds. Nusa Indah.**
Kec. : **Kec. Bati-Bati.**
Kab. : **Kab. Tanah Laut.**

Tujuan Pengangkutan : **PT. Kayan Jaya Tanjung.**
Lengkap Kantor : **Jl. Margomulyo Indah B.58**
Perusahaan Pembeli / : **Surabaya Jawa Timur.**
Perorangan : **Surabaya Jawa Timur.**

- Pengangkutan melalui : **Darat Laut (Sungai/Andar)**
- Jenis Alat Angkut : **PL. Nor. Buat.**
- Alamat lengkap : **Surabaya Jawa Timur.**
- No. Polisi / Nama Kapal / No. : **PL. Nor. Buat.**
Lambung / Nama Tongkang : **Surabaya Jawa Timur.**

- Alamat Lengkap Lokasi : **Pelabuhan Muara Kintap.**
Tempat Muat : **Kec. Kintap.**
- Alamat Lengkap Lokasi : **Pelabuhan Surabaya.**
Tempat Bongkar : **Jawa Timur.**

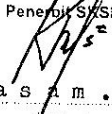
NO URUT	NOMOR DHH	JENIS HASIL HUTAN	JUMLAH (BTG/LBR/KPG/BDL)	VOLUME-BERAT (M3 SM/TON)	KETERANGAN
1.	16/DHH-ESBU/XI/2002.	Terantang. Mahang.	====500==== ====1.999====	====18,0864==== ====11,9940====	PSDH dan DR Telah Dibayar.
JUMLAH :		DENGAN ANGKA DENGAN HURUF (**)	====2.499==== Dua Ribu Empat Ratus Sembilan Puluh Sembilan Potong Sama dengan Tiga Puluh Koma Nol Delapan Nol Empat Meter Kubik.	====30,0804====	

Lembar ke - 1 dan ke - 2
Dokumen ini diterima oleh
Petugas Kehutanan
Pada tanggal

Nama :
Jabatan :

Hasil Hutan telah diterima
oleh
di
Pada tanggal

Nama :
Jabatan :

Pelahir, 19 Desember 2002
Penerbit SKSHH,

Nama : **Rasm.**
Jabatan : **Penerbit SKSHH KO HR.**
No. Reg. : **Q48/BC/TALA/KO/HR/Rsm**

Penjelasan:
1. Dokumen ini merupakan Surat Keterangan Sahnya Hasil Hutan sesuai Undang-Undang Republik Indonesia Nomor 41 Tahun 1999.
2. Dokumen ini wajib dilaporkan kepada Petugas Kehutanan yang ditunjuk selambat-lambatnya 1 (satu) hari setelah hasil hutan sampai di tempat tujuan.
3. Hasil Hutan yang dilengkapi dokumen ini sah apabila isi yang tercantum dalam dokumen sama atau telah sesuai dengan fisik hasil hutan yang dipotong dan tidak ada perbedaan isi/volume lembar ke-1 s/d ke-6 serta tidak terdapat perubahan yang berupa coretan, tindasan atau hapusan.
4. Barang siapa menyalahgunakan dokumen ini diancam dengan sanksi sesuai Undang-undang Nomor 41 Tahun 1999.
5. Barang siapa meniru, memalsukan dokumen dan atau dengan sengaja menyimpan serta menggunakan dokumen tiruan atau dokumen palsu diancam dengan hukuman sesuai peraturan perundang-undangan yang berlaku.

Catatan:
*) Diisi : KB / KBK / LUBAH / BBS / HHBK, sesuai dengan hasil hutan yang dilengkapi dokumen ini.
**) Coret yang tidak sesuai.
***) Diisi dengan huruf mengenai total dari jumlah Batang/Lembar/Keping/Bundel/ dan Volume/Berat (m3 sm/ton).

Model : DK. B. 101

DAFTAR HASIL HUTAN (DHH) UNTUK KAYU OLAHAN

Nomor : 16 / DHH - BSBU / XI / 2002

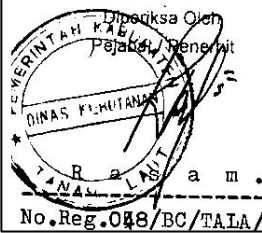
Tanggal : 18 November 2002

CDK/Dsihut.Kab/Kodya : Tanah Laut
Dinas Kelutanan Propinsi : Kalimantan Selatan

Nama Perusahaan : UD. Bahagia Setia Bakti Usaha
Alamat Perusahaan : Desa Nusa Indah Kec. Bati, Bati

Nomor	Kelompok Kayu Olahan	Jenis Kayu Olahan	Ukuran (cm)			Jumlah Keping	Volume Kayu (M3)
			T	L	P		
1	Rimba Campuran	Terantang	6	20	400	127	6,0960
			8	12	400	130	4,9920
			6	12	400	243	6,9984
	Jumlah					500	18,0864
2	Rimba Campuran	Mahang	4	6	400	833	7,9968
			3	5	400	333	1,9980
			2	3	400	833	1,9992
	Jumlah					1,999	11,9940
Jumlah Total						2,499 Ptg	30,0804 M ³

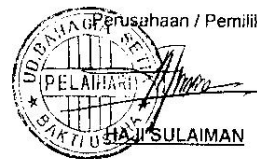
DHH. Ini merupakan lampiran SKSHH Nomor Seri DC.06896441 Tanggal 19. November 2002



Pelaihan, 18 November 2002

Dibuat Oleh :

Perusahaan / Pemilik



No.Reg.048/BC/TALA/KO/HR/Rsm.

The above two pages are a copy of an SKSHH (certificate of proof of validity of forest produce) for sawn timber. The certificate is valid for only five days, from November 19 to November 23, 2002, which means that the carrying vessel must arrive in port in Java within that time. The first page states the details of the seller and the buyer of the timber, and the means of transport (the sailing vessel *Nor Buat*). Also on the first page, in the box, the species and the amount of timber are stated: 500 pieces of terantang with a total volume of 18.0864 cubic metres, and 1,999 pieces of mahang with a total volume of 11.994 cubic

metres.¹ The total volume is thus 30.0804 cubic metres.² The right-hand column of the box states that the PSDH (forest royalty) and the DR (reforestation fund) fees have been paid, but not the amount. Unless these fees have been paid the certificate will not be issued.

The second page provides a detailed description of the consignment. For example, for terantang, it is stated that there are 127 pieces 4.0 metres long by 20 cm wide and 6 cm thick, 130 pieces 4.0 metres long by 12 cm wide by 8 cm thick, and so on. The entire consignment should agree with the details on this page.

¹ Terantang is probably *dipterocarpus caudiferus* Merr., a type of keruing. Mahang refers to *macaranga* sp., sometimes classed as a type of kapur.

² This amount is less than half of the capacity of the vessel concerned. The remainder of the cargo would thus be illegal.

Appendix 5

A note on Kalimantan timbers

The rain forest of Kalimantan is characterized by a much greater profusion of species than is found in temperate forests, with hundreds of species of trees which are suitable for processing into sawn timber. Because it would be bewildering if these individual species were all marketed under their specific names, for trade purposes they are grouped into a small number of commercial categories. This grouping of species for the market can lead to frustration on the part of consumers, as wide differences are sometimes found between pieces which are sold under the same market name. One piece may be dark brown in colour, dense and hard, while another of supposedly the same species may be pale-coloured, light, and soft. Such differences are sometimes attributed to milling from sapwood and heartwood, but marked differences in the characteristics of wood sold under the same name are usually because the pieces concerned come from different tree species. The following is a brief outline of the main species bracketing for trade purposes used in Kalimantan, together with comments on some of the most important varieties of timber.

Of the many different families of trees in Kalimantan, by far the dominant type is the family *Dipterocarpaceae*. Within this family there are four major genera, all of which include important commercial species: *Shorea*, *Dipterocarpus*, *Dryobalanops*, and *Hopea*.

The largest of these is the *Shorea* genus, from which the well-known meranti timbers come. Meranti is divided into two categories, red and white, although in some countries the red is subdivided into dark red and light red. The number of species of tree marketed as 'mixed meranti' is very large. Important species for red meranti include *shorea parvifolia* Dyer, *shorea leptoclados*, *shorea ovalis* sp., and *shorea leprosula* Miq.; and for white meranti, *shorea lamellata* Foxw., and *shorea acuminatissima* Sym. Many different local names are used; apart from the Indonesian name of meranti, these trees are often called *damar* (*damar putih*, *damar merah*, *damar batu*, and many others); but not all trees with local names prefixed by *damar* are classified as meranti. The woods are not very durable. On the scale of 1 to 5 used in Indonesia, with 1 being the most durable and five the least, most meranti woods are rated as level 4. Strength is similarly moderate. The red variety is usually denser than the white, and probably for this reason is generally thought of as the more durable, but there is little difference. Dark red meranti has often been used for marine work, but it has long been hard to obtain in clear grade. Other meranti timbers tend to be fibrous and do not cut very cleanly, especially in plywood. More than any other tropical

hardwood, meranti suffers from a bad name because of the mixture of markedly different types in the same lot.

Not all *shorea* species are sold as meranti. In particular, two species, *shorea laevifolia* Endert and *shorea laevis* Ridl., are sold as either bangkirai or benuas, or bracketed under the market name of balau. In East Kalimantan these timbers are called *anggelam*. Bangkirai is a superb timber, being dense, strong, very durable with a rating of 1 to 2, and with good dimensional stability (not prone to shrinking and warping). It is medium brown in colour, with glistening flecks from the high silica content. It cuts cleanly and is widely used in joiner work as well as heavy construction and marine work.

The *Dipterocarpus* genus includes a wide range of species, most of which are marketed under the name keruing. Like meranti, keruing is well-known internationally. It varies in colour from straw to medium brown, but is more consistent in quality than meranti, and with fewer flaws. Its durability rating is also slightly better, at level 3. Some authorities rate it acceptable for marine work, but within Indonesia it is not regarded as sufficiently durable for this purpose.

The genus *Dryobalanops* includes several species sold under the name of kapur, another major market timber. The best and most common kapur is reddish-brown in colour, but some pieces are brown and even yellowish. The latter, from sapwood, is not durable. Kapur has a distinctive odour when freshly sawn, and is reported to be resistant to termites. Like most meranti it does not cut very cleanly, and is thus a poor choice for joiner work or carving, but it is a good general construction timber, with strength and durability ratings of 3 to 4. It is rarely used in Indonesia for marine work.

Most of the species within the genus *Hopea* are sold under the name merawan. Like kapur, merawan is a good general construction timber, with a durability rating of 3, but it is not favoured for marine work. However, one species, *Hopea sangal* Korth, is an outstanding marine timber. This particular species is marketed as cengal (or chengal). It is strong and very durable, with a rating of 2, and remarkably high dimensional stability. It is straw-coloured when freshly cut, weathering to a dark and rather dirty-looking grey. Chengal is used almost exclusively for vessel construction in West Malaysia, but is rarely used for this purpose in Indonesia because it commands a high price on the international export market.

Although dipterocarp trees predominate in Kalimantan, there are other important commercial timbers which are not classed in this family. The most prized timber, ulin (*eusideroxylon zwageri*), belongs to the family *Lauraceae*, while another high demand timber, merbau (*intsia palembanica*, *intsia bijuga*), belongs to the family *Caesalpiniaceae*. Both of these timbers are extremely strong and durable, with ratings of 1, and both cut cleanly and finish well. Both are reddish-brown in colour, with ulin somewhat the darker. Ulin is the traditional timber of choice for heavy construction work in Borneo, because of its

resistance to termites as well as rot, and is also widely used in vessel building. Merbau is much used in Java for joiner work as well as heavy construction use. It is the timber of choice for major structural members in the palatial houses built for Java's new wealthy classes. People of lesser means have to make do with cheaper timbers.

Another important timber outside the dipterocarp family is nyatoh (*palaquium* sp.), in the family *Sapotaceae*. This is not used much for construction work in Java, because it is not especially durable, being rated from 2 to 4, depending on the particular species. It is however a significant timber for the foreign export market as it cuts and finishes well, although wide boards are prone to warping. It is generally a superior timber to meranti, but as with meranti, there can be wide variations in the characteristics of different pieces.

Timbers for marine use

Of the great diversity of timbers available, only a very small number have found consistent favour in Indonesia for marine use, and most of those are not dipterocarps. Many other Bornean timbers have been used successfully for building plank-on-frame vessels in other parts of the world, but the climatic conditions of the deep tropics are especially demanding. Durability and strength are not the only important requirements, however. In particular, the construction method requires timbers with high dimensional stability. Traditionally planks were assembled with melaleuca bark laid as luting between the seams, and were not caulked afterwards. Timbers which shrink and swell markedly are poor choices for this sort of construction, and if used could lead to numerous leaks and possibly structural failures. The use of wider planking stock than was normal in the European tradition also contributed to great emphasis being placed upon dimensional stability. These factors drastically reduced the number of species suitable for planking of indigenous vessels in Indonesia.

In Java and Madura, the traditional timber of choice was jati, or teak (*tectona grandis*), which is not a Bornean timber. Teak is fairly strong, with a rating of 2 in Indonesia, and a durability rating of 1 to 2, but it is in addition very stable dimensionally. It is still widely used in Sumenep for planking. However, in places where vessels take the ground regularly at low tide, another timber, kesumbi (*Schleichera oleosa*) is preferred for the lowest planks, near the keel. This timber, obtainable from Madura and Kangean, is extremely tough, and better than teak for withstanding abrasion. It is not used for planking above the waterline because it lacks the dimensional stability of teak. For the dowels which hold the planks together, the traditional timber of choice is not teak, which is not regarded as strong enough for this purpose, but *pereng* (sp.?), from a small tree which grows in Madura.

In Kalimantan, the most important timber for vessel building is ulin. As well as being exceptionally strong and durable, rating 1 on both counts, it has excellent dimensional stability, probably because of the high oil content in the wood. Consequently it is suitable

for every part of a vessel, including deck planking and even dowels for the edge-fastening of planks. Most large Bugis vessels built in South Kalimantan over the past three decades have been built entirely of ulin, except for the steel bolts (ungalvanized) to fasten the planking to the frames.

Another outstanding timber for vessel construction is laban (*vitex pubescens*, from the family *Verbenaceae*). This straw-coloured timber is very strong and durable, like ulin being rated 1 on both qualities, and moreover has outstanding dimensional stability. Like teak and ulin, it has a high oil content, so much so that unpainted decks of this timber can be alarmingly slippery when wet. Laban is so stable that it is frequently used unseasoned, with almost no shrinkage after years of use. It also weathers very well, and easily scrubs up to a clean finish. Laban is by far the dominant planking timber in South Sulawesi and eastern Indonesia generally, although in Sulawesi it is called *bitti*. Some builders in Giligenting have turned to laban for planking new vessels, with ulin for the backbone timbers. The sole drawback of this timber is that it is difficult to obtain in long lengths. In Kalimantan, it is usually available only from specialist cutters.

These three timbers, teak, ulin, and laban, are much the most widely used in Indonesia for vessel construction. The properties of chengal, noted in the previous section, qualify this timber to rank alongside the other three, but chengal is not used much because of lack of availability coupled with the high demand for this timber in Singapore and Malaysia. Similarly, bangkirai and merbau are excellent marine timbers, but not used much because of the high demand for these timbers in Java.

One further timber which deserves mention is bungur (*lagerstroemia* sp., from the genus *Lythraceae*). Bungur (also known as *langoting* in Kalimantan) is not as strong as the above group of timbers, and nor is it as durable, with a rating of 3. It nevertheless has a good reputation as a planking timber, and has been used in particular for many Mandar vessels, and also, in recent years, for new vessels at Sepulu. Some Mandar vessel owners maintain that bungur is even better than ulin for planking, because it holds caulking better. They argue that because ulin is so hard and somewhat oily, the caulking is prone to movement when the vessel is working in a seaway, resulting in leaks; whereas the more yielding and less oily bungur provides a better 'grip' for the stuff that keeps the water out. Bungur is not a particularly expensive timber, but like laban it needs to be ordered from a specialist supplier as it is not a standard sawmilling species.

Finally, it is stressed that with so many different species of timber available, there are many more species which have given satisfactory performance. In most cases these timbers do not reach the international market, so they are not well-known outside perahu circles.

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Inside Indonesia

Jakarta Post

Jawa Pos

Tempo

List of principal informants

A work such as this clearly depends on a large number of informants, not all of whom can be included here. The following list, in alphabetical order without attention to second names or honorifics, includes those who contributed the most. The implied ‘ethnographic present’ refers to 2002-2003.

Abdul Azis, Haji. A leading vessel owner from Gedugan on Giligenting, and the son of a vessel owner. A cheerful and bespectacled man in his forties, he owns three large vessels. He lost another vessel to fire in Surabaya a few years earlier. As a young man Haji Abdul Azis worked as a sailor on an engineless *letelete*, but not his father’s vessel, carrying mainly onions and eggs, horses, and crates of tomato sauce. These goods were always carried on consignment, but these days he also has a trading interest in timber, and finances the cargo of one of his vessels. He has financial partners as backers for the other two vessels, but wishes he could dispense with them to obtain better profits. Surprisingly, he has never been to sea on a vessel with an engine. He frequently commutes by ferry and bus between Giligenting and Semarang and Tegal.

Abdul Bariq, Haji. A vessel operator from Labuan, Sreseh, aged about forty-five, involved in the importation of timber from Central and South Kalimantan to Pasuruan. In 2001 he sold a vessel to Haji Komar of Sepulu, and with the proceeds was building a new vessel in late 2002 at Bupoteh, Sreseh. The new vessel was large by Sreseh standards, with a capacity of 200 cubic metres, and was planked with ulin which Haji Abdul Bariq himself had imported.

Abdul Latif. A young shipping agent and tug vessel operator in the port of Juwana, Central Java. He was born and grew up in Telaga Biru, Madura. Although his father was a vessel operator and also a cattle trader, the scholastically inclined boy aspired to become a government official. But despite his good school record his hopes in this respect were frustrated, and instead he went to sea, crewing on a *golekan*. This experience unexpectedly broadened his horizons, and he became aware of new challenges and opportunities. He used his formal education to apply himself to the study of navigation, and as a result of the skills he acquired he became skipper of a large vessel while only in his early twenties. As skipper he also impressed the harbourmaster in the port of Juwana, who offered him work as a pilot for the port. Abdul Latif took this opportunity and settled in Juwana, and married a local woman. He later opened a branch office for a Gresik-based shipping agent, and he also commissioned the construction of his stoutly-built tug vessel, for work in the port. An independent thinker, he disagrees with the usual pessimism about the future of the timber trade.

Amir Hussein, Haji. A leading vessel operator from Gayam, Sapudi. He presently owns five large vessels, with the largest carrying 800 cubic metres of timber. His father was also a vessel operator, and when he died Haji Amir inherited his father’s large *letelete*. This gave him a valuable start in his career. Since 1977 he has built eight new vessels, hiring labour as required but supervising the work himself. The first four of these new vessels followed the traditional *letelete* model, except that they had engines, and were built with teak from Kangean. However, since then Haji Amir has used a form based on the Bugis *pinis* hull, with some modifications of his own, and using ulin timber. His vessels are all well equipped, including with satellite navigation gear, and they all work all year round, unlike in the earlier times when nearly all Madurese vessels would sit out the north-west monsoon. They are all engaged in freight work only, carrying goods outward from Java as well as timber inward.

Ansuri, Haji. A salt producer and former vessel owner and timber importer from Sreseh. He was successful in business up until late 1997, when his vessel was apprehended in a police raid in Pasuruan, and the cargo confiscated because there was no documentation for the timber. Haji Ansuri had borrowed gold, to a value of Rp 10 million, to finance the cargo himself. Unfortunately the rupiah crashed soon after this incident, and as a consequence the value of the gold owed rose to about Rp 40 million. He was a highly respected person very active in community affairs, but after this major setback he largely withdrew from public life, and worked as a fisherman.

Anwar. An engineer on a Madurese vessel, aged in his early forties. He is not Madurese, and was born in Padang Pajang, West Sumatra. He started work as a labourer on an oil palm plantation in Mersing, Malaysia, but later gained work as crewman on a vessel from Riau which was carrying timber from Riau and South Sumatra to Kali Baru, Jakarta. During his frequent stays in Kali Baru harbour he became friendly with many Madurese sailors. He had a good aptitude for engines and had acquired a working knowledge of marine diesels, and when the Madurese *letelete* fleet was being motorized in the early 1990s he was offered a position as 'engine-room master' on a Giligenting vessel. He accepted this offer as the remuneration was considerably higher than what he had been earning. He lives with his family in Cilincing, near Jakarta. His vessel now carries timber to Tegal, and he often goes home to Cilincing when the vessel is in port at Tegal.

Ariyono, Haji. A leading vessel operator from Gayam, Sapudi, who owns three large vessels with a fourth under construction at Gayam in 2003. He has a seafaring background, with both his father and grandfather being vessel operators on Sapudi. He is nevertheless well-educated and articulate, and he is the Chairman of the Village Representative Council (*Badan Perwakilan Desa*) for the *kecamatan* of Gayam. He has a reputation for integrity, and is strongly critical of the attitudes of many of the officials connected with the importation of timber from Kalimantan to Java. He regards nearly all of these officials as being involved in corruption, with the net effect of major loss of revenue to the state coupled with rapid degradation of the forest resource.

Asrani, Haji. A Banjarese timber merchant based in Pasuruan, in his early fifties. He was originally from Banjarmasin, and became involved as a timber merchant there when a young man, importing timber from Central Kalimantan because so much of the timber coming from South Kalimantan was being exported. In 1973 he relocated to Surabaya, and set up there as a timber merchant. In 1993 his son set up a timber warehouse in Pasuruan, and six years later Haji Asrani moved to Pasuruan to take over the management of that business while his son set up another timber warehouse, also in Pasuruan. Haji Asrani's warehouse is supplied by three Bugis vessels, with the largest carrying 200 cubic metres. His timber comes from Sampit and the Katingan river. He is emphatic that the quality of the timber being landed in Java nowadays is much inferior to what it used to be during his early period in the trade.

Darno. A Bugis sailor aged about 40, working on a vessel from Sepulu. In 2001 he was temporarily out of work in Tanjung Perak, Surabaya, when he was approached with an offer of work on a Sepulu, carrying timber from Central Kalimantan. In the wake of the 'ethnic cleansing' of Madurese from Central Kalimantan, Madurese sailors did not dare to visit that province. Darno took up the job, and was initially well satisfied with it. But by 2003 his earnings were very disappointing, with his vessel managing only one voyage per month instead of one a week as before. He regards both the Central government and the regional governments in Central Kalimantan as lacking concern for the plight of the people working in the timber trade. In particular, he feels strongly that it is unfair that the new regional timber tax is applied evenly to all classes of timber, as the lower grade timber cannot fetch a high price on the Java market.

Hamid Sahal. A young Madurese timber merchant with a warehouse in Pasuruan. His business is on a small scale, being supplied by only one vessel. He is well-educated and thoughtful, and concerned over the future of the Kalimantan forest resource. Like the majority of timber importers in Java, he would prefer that all timber landed was fully legal, with appropriately adjusted prices passed on to consumers, but due to the highly competitive nature of the market he is forced to use the same tactics as most others. As a result, he has twice had truck shipments in East Java held up due to documentation being inconsistent with the timber carried, and had to pay substantial amounts to the police for the shipments to be allowed through.

Hanan. A Madurese sawmiller in Kintap, South Kalimantan aged in his late forties. He was originally from the island of Sapudi, and came on a perahu as a young man to Kintap, in 1978. He married a local Banjarese woman, and eventually set up as a sawmiller, without a licence, like most of the other local sawmillers. He owns a large house backing on to the Kintap river. He most recently returned to Sapudi, for a family visit, in 1995, but says that he could not stand to live there now. He has never regretted moving to Kalimantan, which he regards as “the land of opportunity”. He is concerned about the future of the forest resource, as all of the timber he now sells is ‘waste timber’, from land being cleared for *sawit* (oil palm) plantations. He is of the opinion that if the forest were harvested for timber for domestic *consumption* only, without land clearing, the resource could last indefinitely.

Hasanuddin. A young man from Aeng Anyar, Giligenting, who worked up until 2001 as a crew member on Giligenting vessels sailing between Kalimantan and West and Central Java. By careful saving he managed to finance the construction of a small motor vessel, which he now operates as a ferry between Aeng Anyar and Tanjung, the closest point on the mainland of Madura.

Imran Rasyidik. The head of the *desa* of Gayam, on the island of Sapudi. He is young for such a position, in his early thirties, and well-educated with a university degree. He is not a seafaring man, but his late father was a leading vessel operator, owning four large *letelete* based at Gayam. His father-in-law, Haji Muhammad Rasyid, who is a retired schoolteacher, is the younger brother of the very successful vessel owner Haji Amir.

Johori. A former perahu skipper from Sreseh, aged in his late thirties. Better educated than most of his peers, he became skipper of a *janggolan* at an early age, carrying salt and timber. Possibly because of his youth he felt no great attachment to the traditional vessels and no regret at their passing. Instead, he regarded the modernization of the local perahu fleet as a blessing for the sailors concerned, with much better accommodation and working conditions. With his relatively good education he could have led the way in Sreseh to a broader modernization of attitudes, but after the downturn in the profitability of the timber trade in 1998 he ceased seafaring and decided to seek work as a chauffeur in Saudi Arabia.

Komar, Haji. The long-time head of the *desa* of Sepulu, a charismatic authority figure who stood out among his peers as a man of extraordinary principle and conviction. He was a leading figure behind the timber trade which developed in Sepulu during the 1990s, and a co-founder of the Sepulu Entrepreneurs’ Association, which was vital for maintaining the success of the port after the crackdown on inadequate timber documentation. He is not himself a seafarer, but with the timber boom he became involved as an importer and vessel owner. Unfortunately he has some bad luck with his vessels, with two of them sinking. He regards the revised timber transport regulations as economically disastrous for Sepulu.

Maderai. An elderly man from the hamlet of Drusah, Sreseh. In his youth, during the 1930s, he sailed extensively on *janggolan* carrying salt to Central and West Java. He continued to

work as a sailor for many years after Independence, visiting most of the main ports around the Java Sea. Although he is in his eighties he is still fit and physically active, although no longer concerned with vessels.

Manaf. A boatbuilder from Sreseh, aged in his mid-fifties. His father was a successful vessel owner but died young, and his family experienced considerable hardship thereafter, from which they have never quite overcome. He worked for several years as a full-time sailor, but he always wanted to be a boatbuilder, and eventually learned this trade under the tutelage of a renowned craftsman, Haji Umar. A quiet and physically tough man, he can work with great energy, and is in demand as a worker, especially for difficult tasks such as replacing a stem or keel. However, in recent years he became disillusioned with professional vessel building because of the emphasis on completing the job as quickly as possible, unlike in earlier times. Rather than selling his skill cheaply, he built himself an eight-metre vessel and turned to fishing.

Marthawi. The manager of a timber warehouse in Pasuruan. He was originally from Sreseh, the eldest son of the vessel owner Haji Matsahri. The father and son established the business together, as an outlet for the timber which Haji Matsahri was importing from Kalimantan. It has been a successful venture, and was being supplied in 2002 by five vessels. Despite his family background Marthawi is not a seafaring man. He and his wife and small children live in a small basic apartment on the warehouse premises, but they plan to retire to Sreseh.

Matsahri, Haji. A boatbuilder and vessel operator from Sreseh, aged in his late fifties. He owns one vessel with a capacity of 125 cubic metres, as well as a timber warehouse in Pasuruan, which is managed by his eldest son Marthawi. He also owns salt production ponds. His late father was a leading vessel operator, but Haji Matsahri did not depend on this for his success. He left school early and worked as a boatbuilder and later as a salt agent, arranging transport of salt from Sreseh to Pasuruan, before moving into the Kalimantan-Java timber trade. Although he takes pride in his reputation as a boatbuilder, he freely admits that boatbuilding is for him a secondary occupation, for he is at heart a trader. He no longer goes to sea regularly, but is still physically active and has led the construction of several large vessels in recent years.

Nurdin. A Mandar vessel operator from Kota Baru, South Kalimantan, aged about 45. He was born in South Sulawesi, but moved to Kota Baru as a young man. He owns two vessels, with capacities of 75 and 100 cubic metres, and he is skipper of the larger one. Both are engaged mainly in the South Kalimantan-Pasuruan timber trade, but Nurdin has also often carried timber to Celuk Bawang, near Singaraja in Bali. His vessels work all year round, with no long wet season layover. With their six-cylinder diesel engines and their relatively fine shape forward they make the passage to Pasuruan in two days and two nights regardless of conditions. He scoffs at the shape of the Sepulu vessels, which he regards as much too full forward, "bashing against the waves". In 2002 he was planning to build a third vessel of 200 cubic metres capacity.

Rofi'i, Haji. A leading vessel operator and timber trader from Sepulu, aged about forty. He is also the head of the *desa* of Prancak, at Sepulu, and a driving force behind the establishment of the Sepulu Businessmen's Association. His late father, who was the previous *desa* head, was very successful as a fish trader. Haji Rofi'i also worked as a fish trader, sailing on his own vessel as far as the coast of South Kalimantan to buy fish from vessels at sea, and after drying them selling the fish on the Surabaya market. After the fish trade declined because of competition from entrepreneurs in Kalimantan, he went into coconut trading before switching to timber. He suffered a serious setback in late 2002 when his largest vessel, which had only been launched a few months earlier, was lost together with her cargo of timber due to a fire on board.

Rohim. A young Madurese man from Pasuruan, who relocated to Sreseh after marrying a woman from there. He experienced difficulty in finding work in Sreseh, until in 2002 he obtained a position as a crew member on a local timber-carrying perahu. Unfortunately this vessel was old and in poor condition, and it leaked badly when heavily laden. On Rohim's first voyage the motorized pump failed, and the vessel went down slowly over three days, far out in the Java Sea. He and his fellow crew were rescued by a Sepulu fishing vessel. He received no earnings, and was left in debt as he had borrowed money to help pay for fuel and provisions for the voyage. He still had no work in early 2003.

Roshid, Pak. A boatbuilder and vessel operator from Sreseh, aged about fifty. It was he who broke with tradition in 1995 by building the first *sepel* in Sreseh, with a form derived from the Mandar vessels, rather than the standard local type, the *janggolan*. His vessel was successful and thereafter all new vessels in Sreseh were of the *sepel* type. Pak Roshid's vessel is still working carrying timber to Pasuruan, and he was planning in 2003 to increase the depth of the hull for greater carrying capacity.

Rufieh, Haji. A leading vessel operator from Labuan, Sreseh, in his fifties. His father, the late Haji Sidik, was an extremely successful maritime entrepreneur who made his fortune in the pole trade from Beliton to Jakarta and Cirebon. Haji Rufieh became business manager for his father and before telecommunications reached Sreseh he used to stay in West Java throughout the sailing season. He inherited a large fleet of fifteen engineless vessels from his father, but since then several of them have been lost on reefs and now only a few remain in operation. They still work the pole trade from Beliton, with very good returns because of the lack of a middle man, with the vessel owners selling directly to assured customers.

Sartori. The harbourmaster at Sepulu, a post he has held since the early 1990s. Unlike the majority of officials in the Department of Marine Communications, he has much experience of, and a serious interest in, small watercraft. He is of Bugis ethnicity, and was brought up on the island of Sapeken, to the east of Kangean. In his youth he worked as a diver for pearl shell and trepang, sailing from Sapeken to an uninhabited sandy island off the northwest of Australia. He used to dive with an air hose, but no helmet and only wooden-framed goggles, to depths of 25 metres. He later sailed a five-metre *sopet* (a canoe-like vessel) single-handed from Sapeken to Bali, and in his spare time he still enjoys sailing on a very small engineless *golekan*, going as far as the oil rigs in the Java Sea. He is knowledgeable about Bugis settlement in the outer islands of the Sumenep archipelago.

Solechin, Haji. A shipping agent in the port of Pasuruan, aged about forty. He is originally from Sreseh. He started off his business in Pasuruan as a small-scale timber merchant, but he enjoyed remarkable success, acquiring a fleet of five trucks. In 1998 the harbourmaster for Pasuruan suggested to him that he should become a shipping agent, as there was a need for more agents in the port, and Haji Solechin had the necessary financial resources. In 1999-2000 his agency, P.T. Solechin Agung, was handling forty to fifty vessels each month; but in 2002-3 business had declined, with only about twenty vessels a month, and he had to sell four of his trucks in order to meet his commitments. He nevertheless claimed that there was still good opportunity for financial backers of timber shipments, and offered me a return of 4 percent per month should I wish to become involved.

Sotlan. Head of the *desa* of Bringsang, Giligenting, aged in his early thirties. He is not a sailor himself, but his late father, Haji Halik, was a leading vessel operator, with four *letelete*. By 2002 only one of these remained, owned by Sotlan. His father's success enabled Sotlan to obtain a good education, including an economics degree, and this in turn helped him to be elected in early 2003 as *desa* head. However, in this maritime entrepreneurial society formal education has little connection with wealth, and despite his administrative status his economic circumstances are very modest by comparison with the leading maritime entrepreneurs on the island.

Sum, Pak. A vessel owner from Gedugan, Giligenting, aged about seventy. He started out as a sailor on a *letelete* in the 1950s, carrying mainly salt from Madura to West Kalimantan, and horses from Sumbawa to Java. He has been shipwrecked twice. It was not until 1997 that he became the owner of a vessel, an old engineless craft, which he used in the timber trade from Central Kalimantan to Madura, and later to Juwana in Central Java. He bought a second old engineless vessel in 1999. He has no intention of installing an engine in either vessel. Pak Sum no longer goes to sea, but he is still very fit and active, tending cattle and carrying out numerous other tasks around his inland hamlet.

Tolak, Pak. A former sailor and skipper from Giligenting, aged in his early forties. He is a nephew of the vessel owner Pak Sum. In 2001 he was imprisoned for three months after the vessel of which he was skipper was intercepted off Klianget, with no documentation for its cargo of timber. Although his household is poor, he no longer goes to sea for health reasons, and his family now relies on the earnings of his teenage son who has started work as a perahu sailor.

Yakob, Pak. The former head of the *desa* of Telaga Biru, aged in his late sixties. He has only one eye, the other having been lost many years ago after being gored by a cattle horn. The son of a vessel owner, he started work as a sailor on *golekan* during the 1950s, shipping cattle to Pontianak. He survived a tragic accident in 1963, when his vessel sank in severe weather, with 38 cattle lost as well as several crew members. He was elected as *desa* head in 1974, and retained this position until 2000. During his leadership Telaga Biru progressed economically, with timber warehouses being built all around the port foreshore. He himself was the principal coordinator of the timber trade during the boom years of the 1990s. He feels disappointed about the changes which have taken place in the timber trade after 2000, and no longer has any direct involvement with the timber business or vessels.

Zaini, Haji. A timber importer with his own warehouse at Pasuruan, aged in his mid-fifties. He was originally from Sreseh, and for many years sailed on *janggolan* owned by his late father. He has twice been attacked by pirates, once at Malatayur Point in Central Kalimantan, and once near Gresik. In the second incident a fellow crew member, also from Sreseh was murdered, shot in the head by one of the marauders. Zaini enjoyed considerable business success during the early 1990s, with his warehouse supplied with timber by four vessels belonging to his father. However, during the second half of the decade all but one of those vessels were lost at sea. In 2002 he suffered a serious financial setback when a nearly new vessel owned by a younger brother was lost in Marabahan, Kalimantan, due to a fire on board. The vessel was fully laden with timber which Zaini had paid for, leaving him with a debt of Rp 25 million.